### geneID geneName

- 10 androgen binding protein
- 23 plasma kallikrein (rPK)
  Lim-2; embryonic motor neuron topographic organizer,
  HOMEOBOX PROTEIN LIM-2 (LIM/HOMEODOMAIN
- 62 PROTEIN LHX5).
  - DCC; netrin receptor; immunoglobulin gene superfamily
- 95 member; former tumor suppressor protein candidate
- 122 N-myc proto-oncogene protein M-phase inducer phosphatase 2 (MPI2); cell division
- 161 control protein 25 B (CDC25B) von ebner's gland protein 2; VEG protein 2; VEGP2 + von ebner's gland protein 1; VEG protein 1; VEGP1;
- **177 VEGP** 
  - synaptobrevin 1 (SYB1); vesicle-associated membrane
- 210 protein 1 (VAMP1)
  - 3-methylcholanthrene-inducible cytochrome P450
- 211 (P450MC); cytochrome P450 IA1 (CYPIA1) cytochrome P450 VII (CYP7); cholesterol 7-alpha-
- 225 monooxygenase; cholesterol 7-alpha-hydroxylase
- 227 cyclic nucleotide-activated channel, olfactory
- 239 cytochrome P450 2E1 (CYP2E1); P450-J; P450RLM6
- 245 high affinity L-proline transporter neuronal acetylcholine receptor protein alpha-3 chain
- 282 precursor
- 284 sodium channel I
  - voltage-dependent L-type calcium channel alpha 1C subunit (CACNA1); cardiac muscle L-type calcium channel alpha 1 polypeptide isoform 1 (CCHL1A1); rat
- 285 brain class C (RBC); CACH2; CACN2
- 290 ATPase, hydrogen-potassium, alpha 2a subunit sodium channel, amiloride sensitive, alpha subunit;
- 297 SCNEA; alpha NACH; SCNN1A; RENAC;
- 298 cardiac specific sodium channel alpha subunit
- 299 potassium channel protein CDRK neuronal acetylcholine receptor protein alpha 5 subunit
- 310 precursor (CHRNA5; ACRA5)
- 311 sodium channel SHRSPHD, gamma subunit, epithelial
- 312 sodium channel protein 6 (SCP6) renal organic anion transporter (ROAT1) + multispecific
- 323 organic anion transporter (OAT1)
  neuronal acetylcholine receptor protein alpha 6 subunit
- 324 precursor (CHRNA6; ACRA6)
- 325 purinergic receptor P2X3, ligand-gated ion channel
- 327 calcium channel, alpha 1 beta
- 328 sodium channel, beta 1 subunitneuronal acetylcholine receptor protein alpha 7 subunit338 precursor (CHRNA7; ACRA7)
- 339 neuronal nicotinic acetylcholine receptor alpha 2 subunit

Fig. 1. Genes down regulated on day 1.

proton gated cation channel drasic; sensory neuron 340 specific channel-inducing factor precursor (CHIF); corticosteroid-347 induced protein 348 MYELIN BASIC PROTEIN S (MBP S) 351 organic cation transporter 2 (OCT2) 354 ASIC1 proton gated cation channel 367 glycine receptor alpha 3 subunit precursor (GLRA3) voltage-gated K+ channel protein; RK5; potassium 368 channel protein voltage-activated calcium channel alpha-1 subunit (RBE-II); nickel-sensitive T-type calcium channel alpha-1 inward rectifier potassium channel subfamily J member 2 382 (KCNJ2); RBL-IRK1 eek proto-oncogene, protein tyrosine kinase, eph/elk-589 related 590 prostaglandin D2 receptor activin receptor type I precursor (ACVR1; ACTR1); serine/threonine-protein kinase receptor R1 (SKR1); TGF-591 B superfamily receptor type I (TSR-I); ACVRLK2 592 calcitonin receptor precursor (CT-R); C1A/C1B prostaglandin E2 receptor EP2 subtype (PGE receptor 593 EP2 subtype; PTGER2); prostanoid EP2 receptor NEUREXIN I-BETA PRECURSOR. Non-processed neurexin I-beta Synaptic cell surface proteins + NEUREXIN I-ALPHA PRECURSOR, Non-processed 600 neurexin I-alpha Synaptic cell surface proteins gastrin-releasing peptide precursor (GRP); neuromedin 602 C serotonin receptor; 5-hydroxytryptamine 6 receptor (5-HT-6); ST-B17; possesses high affinity for tricyclic 605 psychotropic drugs 606 platelet activating factor receptor alpha 2B adrenergic receptor (ADRA2B); alpha 2B 608 adrenoceptor VASOACTIVE INTESTINAL POLYPEPTIDE RECEPTOR 2 PRECURSOR (VIP-R-2) (PITUITARY ADENYLATE CYCLASE ACTIVATING POLYPEPTIDE TYPE III RECEPTOR) (PACAP TYPE III RECEPTOR) 610 (PACAP-R-3). transforming growth factor beta 3 (TGF-beta3); 616 antiproliferative growth factor 620 vasopressin V1b receptor 621 prostaglandin E2 receptor EP4 subtype alpha 2C adrenergic receptor (ADRA2C); alpha 2C 622 adrenoceptor 623 vasopressin/arginine receptor, V1a 634 prostaglandin F2 alpha receptor 635 growth hormone secretagogue receptor 1 (GHSR) 636 cholecystokinin receptor

Fig. 1. Genes down regulated on day 1.

# NMDAR2A N-METHYL-D-ASPARTATE RECEPTOR 641 SUBUNIT P2U PURINOCEPTOR 1 (ATP RECEPTOR) (P2U1) 643 (PURINERGIC RECEPTOR). 646 estrogen receptor beta (ER-beta); ESR2; NR3A2 647 kappa-type opioid receptor (KOR-1) 648 lutropin-choriogonadotropic hormone receptor 649 beta 1 adrenergic receptor (ADRB1R) 650 5-hydroxytryptamine (serotonin) receptor 1B; 5-HT1B 651 adrenergic receptor, beta 2 655 muscarinic acetylcholine receptor M3 (MACHR) 660 B1 bradikinin receptor mu opioid receptor (MUOR1); mu-type opioid receptor 661 (MOR-1); opioid receptor B 662 serotonin 5HT2 receptor 664 somatostatin receptor 2 692 melatonin receptor 704 somatostatin receptor 707 galanin receptor 1 720 neuromedin B receptor 725 transmembrane receptor UNC5H1. 748 pancreatic polypeptide receptor PP1 789 interleukin-2 (IL-2) 857 somatostatin 969 luteinizing hormone, alpha

1169 mast cell protease 1 precursor (RMCP-1)

Fig. 2. Genes upregulated on day 3.

# geneID geneName 50 microglobulin; beta-2-microglobulin + prostaglandin receptor F2a 70 glutathione S-transferase Yb subunit; GST subunit 4 mu (GSTM2) 142 vascular cell adhesion protein 1 precursor (V-CAM 1) 316 gamma-aminobutyric acid (GABA) transporter 2 672 VGF8A protein precursor 860 Transforming growth factor beta (TGF-beta) masking protein large subunit 869 erythropoietin precursor (EPO) 972 protein arginine N-methyltransferase 1

### genelD geneName

24 prostatic secretory protein probasin (M-40)

E-selectin precursor; endothelial leukocyte adhesion molecule 1 (ELAM-1); leukocyte-endothelial cell

- 30 adhesion molecule 2 (LECAM2); CD62E Protein kinase C-binding protein beta15; RING-
- 48 domain containing kidney band 3 anion exchange protein; SLC4A1;

57 AE1

L-selectin precursor; lymph node homing receptor; leukocyte adhesion molecule-1 (LAM-1); LY-22; lymphocyte surface MEL-14 antigen; leukocyte-endothelial cell adhesion molecule 1 (LECAM1);

- 58 CD62L
- 80 Wilms' tumor protein (WT1); tumor suppressor
- 88 CD28, T-cell surface antigen
- 96 c-fgr proto-oncogene
- 101 CD3, gamma chain
- 106 cathepsin E
- 150 S-myc proto-oncogene protein; myc-related G protein-activated inward rectifier potassium channel 4 (GIRK4); inward rectifier potassium channel subfamily J member 5 (KCNJ5); heart KATP channel; KATP-1; cardiac inward rectifier (CIR);
- 215 KIR3.4
- 268 fructose (glucose) transporter
- 312 sodium channel protein 6 (SCP6)
- 328 sodium channel, beta 1 subunit sodium-hydrogen exchange protein-isoform 2 (NHE-329 2)

PMCA; ATP2B2; calcium-transporting ATPase plasma membrane (brain isoform 2; EC 3.6.1.38);

- 331 calcium pump
- 332 ATPase, sodium/potassium, gamma subunit G protein-activated inward rectifier potassium channel 1 (GIRK1); inward rectifier potassium channel subfamily J member 3 (KCNJ3); KGA;
- 333 KGB1; KIR3.1 proton gated cation channel drasic; sensory neuron 340 specific
- 342 sodium channel 2, brain
- 346 ATPase, copper-transporting, Menkes protein channel-inducing factor precursor (CHIF);
- 347 corticosteroid-induced protein
- 350 synaptotagmin II
- 458 carbonic anhydrase 4
- 592 calcitonin receptor precursor (CT-R); C1A/C1B
- 637 vasopressin V2 receptor
- 650 5-hydroxytryptamine (serotonin) receptor 1B; 5-HT1B

Fig. 3. Genes down regulated on day 3

gamma-aminobutyric acid receptor alpha 4 subunit 682 precursor (GABA(A) receptor; GABRA4) vitamin D3 receptor (VDR); 1,25-dihydroxyvitamin D-694 3 receptor; NR1I1 697 muscarinic acetylcholine receptor M5 (CHRM5) 704 somatostatin receptor 707 galanin receptor 1 granulocyte-macrophage colony-stimulating factor 728 (GM-CSF); colony- stimulating factor (CSF) 758 guanylyl cyclase (membrane form) 760 parathyroid hormone receptor PTH2 762 galanin receptor 2 777 5-hydroxytryptamine (serotonin) receptor 2B guanine nucleotide-binding protein G(I)/G(S)/G(O) 937 gamma-7 subunit (GNG7; GNGT7) 983 adenylyl cyclase 4 1028 protein kinase C-binding protein nel homolog 1 1080 phospholipase C beta 3 (PLC-beta 3) 1085 tissue-type plasminogen activator (t-PA) NVP; neural visinin-like Ca2+-binding protein, VISININ-LIKE PROTEIN 1 (VILIP-1) (NEURAL VISININ-LIKE PROTEIN 1) (NVL-1) (NVP-1) (21 KD 1165 CABP).

Fig. 4. Up-regulated genes on day 7

## geneID geneName

131 signal transducer & activator of transcription 3 (STAT3)

430 ceruloplasmin precursor (CP); ferroxidase

clusterin (CLU); testosterone-repressed prostate message 2 (TRPM2); apolipoprotein J; sulfated 558 glycoprotein 2 (SGP2); dimeric acid glycoprotein (DAG) heparin-binding growth factor 2 precursor (HBGF2); basic fibroblast growth factor (BFGF); fibroblast growth factor 2 939 (FGF2); prostatropin geneID

```
geneName
  17 T-cell receptor CD3 zeta subunit
     P-selectin precursor; granule membrane protein 140 (GMP-140);
     PADGEM; CD62P; leukocyte-endothelial cell adhesion molecule 3
  44 (LECAM3)
  45 T-cell receptor gamma subunit
  57 kidney band 3 anion exchange protein; SLC4A1; AE1
     L-selectin precursor; lymph node homing receptor; leukocyte
     adhesion molecule-1 (LAM-1); LY-22; lymphocyte surface MEL-14
     antigen; leukocyte-endothelial cell adhesion molecule 1
  58 (LECAM1); CD62L
  71 myelin P0 protein precursor; MPZ
     MAL; T-lymphocyte maturation-associated protein; myelin protein
 157 MVP17
 165 ErbB3 EGF receptor-related proto-oncogene; HER3
     CD 30L receptor; lymphocyte activation antigen CD30; Ki-1
 185 antigen; CD30 precursor
 198 zinc transporter (ZnT-1)
     CCHB3; calcium channel (voltage-gated; DIHYDROPYRIDINE-
203 SENSITIVE L-TYPE, CALCIUM CHANNEL BETA-3 SUBUNIT.
207 water channel aquaporin 3 (AQP3)
     3-methylcholanthrene-inducible cytochrome P450 (P450MC);
211 cytochrome P450 IA1 (CYPIA1)
220 sodium/potassium-transporting ATPase beta 1 subunit (ATP1B1)
254 glucose transporter 3
    ATP-sensitive inward rectifier potassium subfamily J member 8
    (KCNJ8); UKATP-1; ATP-sensitive inwardly rectifying K+ channel
256 KIR6.1
265 RIM; Rab3 effector in synaptic-vesicle fusion
282 neuronal acetylcholine receptor protein alpha-3 chain precursor
283 purinergic receptor P2X5, ligand-gated ion channel
284 sodium channel I
    renal organic anion transporter (ROAT1) + multispecific organic
323 anion transporter (OAT1)
    neuronal acetylcholine receptor protein alpha 6 subunit precursor
324 (CHRNA6; ACRA6)
328 sodium channel, beta 1 subunit
329 sodium-hydrogen exchange protein-isoform 2 (NHE-2)
    PMCA; ATP2B2; calcium-transporting ATPase plasma membrane
331 (brain isoform 2; EC 3.6.1.38); calcium pump
334 fibrinogen beta subunit (FGB)
352 sulfonylurea receptor (SUR)
367 glycine receptor alpha 3 subunit precursor (GLRA3)
379 multidrug resistance protein 2 (MDR2); P-glycoprotein (PGY2)
383 potassium channel, voltage gated, KV3.4; RAW3; KCNC4
386 sodium/chloride cotransporter, thiazide sensitive
    synaptosomal associated protein 25; SNAP-25; SNAP; SNAP25;
491 SUP
592 calcitonin receptor precursor (CT-R); C1A/C1B
598 gamma-aminobutyric acid (GABA-A) receptor, beta 1 subunit
```

NEUREXIN I-BETA PRECURSOR, Non-processed neurexin I-beta Synaptic cell surface proteins + NEUREXIN I-ALPHA PRECURSOR, Non-processed neurexin I-alpha Synaptic cell 600 surface proteins

608 alpha 2B adrenergic receptor (ADRA2B); alpha 2B adrenoceptor

609 neuropeptide Y receptor type 1

621 prostaglandin E2 receptor EP4 subtype

622 alpha 2C adrenergic receptor (ADRA2C); alpha 2C adrenoceptor

624 c-ErbA oncogene; thyroid hormone receptor alpha-1 (THRA1) gamma-aminobutyric acid receptor alpha 2 subunit precursor

626 (GABA(A) receptor; GABRA2)

629 P2Y PURINOCEPTOR 6 (P2Y6)

639 glutamate receptor 1 precursor (GluR-1); GluR-A; GluR-K1 gamma-aminobutyric acid receptor alpha 3 subunit precursor

640 (GABA(A) receptor; GABRA3)

641 NMDAR2A N-METHYL-D-ASPARTATE RECEPTOR SUBUNIT P2U PURINOCEPTOR 1 (ATP RECEPTOR) (P2U1)

643 (PURINERGIC RECEPTOR).

650 5-hydroxytryptamine (serotonin) receptor 1B; 5-HT1B

753 glycine receptor, alpha 2A subunit, inhibitory

760 parathyroid hormone receptor PTH2 5-hydroxytryptamine 5A receptor (5HT5A; HTR5A); serotonin

761 receptor; REC17

766 acetylcholine receptor alpha

brain natriuretic peptide (BNP); 5-kDa cardiac natriuretic peptide;

**968 ISO-ANP** 

969 luteinizing hormone, alpha

971 cocaine/amphetamine-induced rat transcript, CART

1028 protein kinase C-binding protein nel homolog 1

1096 14-3-3 protein eta; PKC inhibitor protein-1; KCIP-1

1133 plectin

NVP; neural visinin-like Ca2+-binding protein, VISININ-LIKE PROTEIN 1 (VILIP-1) (NEURAL VISININ-LIKE PROTEIN 1) (NVL-1165 1) (NVP-1) (21 KD CABP).

Fig. 6. Genes up regulated on day 14.

geneID geneName 1103 plasminogen activator inhibitor 2A

Fig. 7. Genes down-regulated on day 14.

```
geneID
          geneName
        2 syndecan 3
          ras-GTPase-activating protein (GAP); ras p21 protein
       13 activator; p120GAP
          interleukin-6 receptor beta chain; membrane glycoprotein
       18 ap130
       24 prostatic secretory protein probasin (M-40)
       40 A-raf proto-oncogene
       64 prothymosin-alpha (PTMA)
       86 cadherin 6 precursor; kidney-cadherin (K-cadherin)
          neurofibromin; neurofibromatosis protein type I (NF1);
      125 GTPase stimulatory protein
      152 c-H-ras proto-oncogene; transforming G-protein p21
      153 HSP84; HSP90-beta; heat shock 90kD protein
          Neural adhesion molecule F3, RAT NEURAL ADHESION
      170 MOLECULE F3, COMPLETE CDS.
          BIG-1 PROTEIN PRECURSOR; neural cell adhesion protein;
      184 neurite outgrowth-promotor
      200 potassium channel protein; KSHIIIA3
          ATP-sensitive inward rectifier potassium channel subfamily J
      201 member 1 (KCNJ1); KAB-1; KIR1.1; ROMK1
     236 Band 3 (B3RP3), 3 CI-HCO3-anion exchanger
          voltage-gated potassium channel protein KV1.1; RBK1;
      243 RCK1; KCNA1
      258 potassium channel, inward rectifier 9
      275 taurine transporter
          neuronal acetylcholine receptor protein alpha-3 chain
     282 precursor
     284 sodium channel I
     299 potassium channel protein CDRK
          neuronal acetylcholine receptor protein alpha 6 subunit
     324 precursor (CHRNA6; ACRA6)
     327 calcium channel, alpha 1 beta
     328 sodium channel, beta 1 subunit
          PMCA; ATP2B2; calcium-transporting ATPase plasma
     331 membrane (brain isoform 2; EC 3.6.1.38); calcium pump
          17-kDa ubiquitin-conjugating enzyme E2 (UBE2B); ubiquitin-
     403 protein ligase; ubiquitin carrier protein; HR6B
          synaptosomal associated protein 25; SNAP-25; SNAP;
     491 SNAP25; SUP
     499 67-kDa glutamic acid decarboxylase (GAD67); GAD1
     589 eek proto-oncogene, protein tyrosine kinase, eph/elk-related
     596 D(1A) DOPAMINE RECEPTOR
          growth hormone receptor precursor (GH receptor; GHR);
     604 serum-binding protein
         NMDAR2A N-METHYL-D-ASPARTATE RECEPTOR
     641 SUBUNIT
     650 5-hydroxytryptamine (serotonin) receptor 1B; 5-HT1B
     652 thyroid hormone beta receptor; c-erbA-beta
     654 gamma-aminobutyric acid (GABA-A) receptor, beta 3 subunit
```

Fig. 7. Genes down-regulated on day 14.

glutamate receptor 2 precursor (GLUR-2; GLUR-B; GLUR-681 K2) 709 glutamate receptor 4 precursor (GLUR-4; GLUR-D) 734 cannabinoid receptor 1, neuronal neuromedin K receptor (NKR); neurokinin B receptor; NK-3 745 receptor (NK-3R) 751 GABA-A receptor gamma-2 subunit precursor 762 galanin receptor 2 insulin-like growth factor binding protein 1 precursor (IGFBP-901 1; IBP-1) 913 presomatotropin protein kinase C beta-I type (PKC-beta I) + protein kinase C 932 beta-II type (PKC-beta II) guanine nucleotide-binding protein G(O) alpha subunit 951 (GNAO; GNA0) guanine nucleotide-binding protein G(I) alpha 1 subunit 965 (GNAI1); adenylate cyclase-inhibiting G alpha protein 976 serine/threonine kinase PCTAIRE2 (PCTK2) 1028 protein kinase C-binding protein nel homolog 1 PKI-alpha; cAMP-dependent protein kinase inhibitor 1054 (muscle/brain form) 1096 14-3-3 protein eta; PKC inhibitor protein-1; KCIP-1 NVP; neural visinin-like Ca2+-binding protein, VISININ-LIKE PROTEIN 1 (VILIP-1) (NEURAL VISININ-LIKE PROTEIN 1) 1165 (NVL-1) (NVP-1) (21 KD CABP).

Fig. 8. Genes whose expression was modulated compared to control rats with no axiotomy.

Treatment group vs. control group																	
AS	AF	BS		-	AS	1	٩F	BS		BF			AS	AF	:	BS	BF
	5	5			5	06	506								805		
		8	8	8			507								812		
1	3	13	13	13							520		81	4	814	814	814
			20	20	5	28	528				528		82	4	824		824
10	)6	106	106				533						84	4	844	844	844
10	)7	107	107	107			545				545		85	8	858	858	858
				123			548						87	3	873	873	873
		175					558								892		
18	3	183					559		559		559		89	9		899	)
18	35				5	62	562						91	1	911	911	
		195		195	5	63	563						91	5	915	915	915
19	7	197									568		91	7	917	917	917
20	)3	203	203	203			571								922		922
22	20	220					572									925	5
23	88	238			5	90							92	8			
24	8	248			6	04	604		604		604		93	1	931	931	931
		261			6	05							93	6		936	936
26	62	262	262	262	6	21							93	9		939	)
		275			6	28	628		628		628		94	2		942	2
29	15	295	295	295	6	44	644		644		644		94	3	943	943	3
		296		296	6	47	647		647				95	3	953		
30	)1	301			6	50	650		650		650		95	6	956	956	956
		303			6	61	661		661		661		96	4	964	964	964
30	9	309	309	309	6	73	673		673		673		96	6	966		
		317		317					675							970	)
32		328	328	328		78	678		678		678				974		
35		354	354	354		79	679		679		679		98		980		
35		355	355	355		89	689		689		689		98		982	982	
35	7	357				91			691				99		996	996	996
		358		358		99	699						101				
		373				03	703		703		703		102		1028	1028	1028
		374				14			714				106	2	1062		
37		383		383		15	715		715		715				1088		1088
		407		407		17			717				109		1096	1096	
		411				20	720		720		720		110		1103	1103	1103
42		423			7:	28	728		728		728		111				
43		436	436	436	_				729				112		1123	1123	
43		437	437	437		30			730						1135	1135	
43		438	438	438		41							114			1147	
43		439				42	742		742				115		1151	1151	
		453		453		54	754		754				115		1155	1155	
46		464	464	464		58	758		758		758		116		1165	1165	
47		477	477	477		70	770		770				116	y	1169	1169	
47		478				74 76	770		770		776						1173
48		480				76	776		776 704		776 794						
		482				84 34	784 704		784 704		784 704						
50		493 505	EOE	EOE		94	794		794		794						
50	3	505	505	505	75	98	798										

Fig. 8. Genes whose expression was modulated compared to control rats with no axiotomy.

AS: SAM test after normalization AF: F test after normalization BS: SAM test before normalization BF: F test before normalization

```
1 glypican-1 precursor; HSPG M12; nervous system cell-surface heparan
 2 syndecan 3
 3 protocadherin 4
 4 tumor necrosis factor receptor 1 precursor (TNFR1)
 5 glutamyl aminopeptidase A
 6 LIM domain protein CLP36, homologous to rat RIL
 7 G1/S-specific cyclin D1 (CCND1)
 8 proliferating cell nuclear antigen (PCNA); cyclin
 9 antigen peptide transporter 2; TAP2L; APT2; TAP2; MTP2
10 androgen binding protein
11 fos-related antigen 1 (FOSL1; FRA1)
12 transforming growth factor alpha (TGFa); EGF-like TGF; ETGF
13 ras-GTPase-activating protein (GAP); ras p21 protein activator; p120GAP
14 multidrug resistance protein (MRP)
15 rat CD1 antigen precursor
   CD44 antigen precursor; phagocytic glycoprotein I (PGP-1); HUTCH-I;
   extracellular matrix receptor-III (ECMR-III); GP90 lymphocyte
16 homing/adhesion receptor; hermes antigen; hyaluronate receptor; LY-24
17 T-cell receptor CD3 zeta subunit
18 interleukin-6 receptor beta chain; membrane glycoprotein gp130
19 NK lymphocyte receptor; NKR-P1B
20 LIM, muscle
21 G1/S-specific cyclin D2 (CCND2); vin-1 proto-oncogene
22 prohibitin (PHB); B-cell receptor-associated protein 32 (BAP32)
23 plasma kallikrein (rPK)
24 prostatic secretory protein probasin (M-40)
25 p21; cip1; waf1
26 Crk adaptor protein (CRK-II alternative splice variant); proto-oncogene c-crk
27 Sky proto-oncogene; Tyro3; Rse; Dtk
   thioredoxin peroxidase 1 (TDPX1); thioredoxin-dependent peroxide
28 reductase 1; thiol-specific antioxidant protein (TSA)
29 leukocyte common antigen precursor (LCA); CD45 antigen; T200; PTPRC
   E-selectin precursor; endothelial leukocyte adhesion molecule 1 (ELAM-1);
30 leukocyte-endothelial cell adhesion molecule 2 (LECAM2); CD62E
31 T-cell surface glycoprotein CD5 precursor; lymphocyte glycoprotein LY-1
32 interleukin-6 receptor alpha precursor (IL-6R-alpha; IL6R)
33 Myc-Max-interacting tumor suppressor (MXI1)
34 Gax, growth-arrest-specific protein
35 G1/S-specific cyclin D3 (CCND3)
36 growth arrest and DNA-damage-inducible protein 45 (GADD45)
37 natural killer (NK) cell protease 1 (RNKP-1)
38 p53 nuclear oncoprotein
39 BTG1 protein; anti-proliferative factor
40 A-raf proto-oncogene
41 c-ros-1 proto-oncogene
42 glutathione S-transferase Ya subunit (GST YA); ligandin subunit 1 alpha
43 integrin-associated protein form 4
   P-selectin precursor; granule membrane protein 140 (GMP-140); PADGEM;
44 CD62P; leukocyte-endothelial cell adhesion molecule 3 (LECAM3)
45 T-cell receptor gamma subunit
   interleukin-2 receptor alpha subunit precursor (IL-2 receptor alpha; IL2RA);
46 TAC antigen; CD25 antigen
```

- 47 fos-related antigen 2 (FRA2); FOSL2
- 48 Protein kinase C-binding protein beta15; RING-domain containing
- 49 G1/S-specific cyclin E (CCNE)
- 50 microglobulin; beta-2-microglobulin + prostaglandin receptor F2a
- 51 natural killer (NK) cell protease 4 (RNKP-4)
- 52 maspin; protease inhibitor 5 (PI5); tumor suppressor
- 53 rac-beta serine/threonine kinase (rac-PK-beta); AKT2
- 54 casein kinase II beta subunit (CKII; CSNK2B; CK2N); phosvitin
- 55 Mas proto-oncogene; G-protein coupled receptor; Mas-1
- 56 microsomal glutathione S-transferase (GST12; MGST1)
- 57 kidney band 3 anion exchange protein; SLC4A1; AE1
  L-selectin precursor; lymph node homing receptor; leukocyte adhesion
  molecule-1 (LAM-1); LY-22; lymphocyte surface MEL-14 antigen; leukocyte-
- 58 endothelial cell adhesion molecule 1 (LECAM1); CD62L
- 59 B7.1
  - urokinase receptor + GPI-anchored form urokinase plasminogen activator
- 60 surface receptor (PLAUR: UPAR); CD87
- 61 Jun-B; c-jun-related transcription factor
  - Lim-2; embryonic motor neuron topographic organizer, HOMEOBOX
- 62 PROTEIN LIM-2 (LIM/HOMEODOMAIN PROTEIN LHX5).
- 63 G2/M-specific cyclin G (CCNG)
- 64 prothymosin-alpha (PTMA)
  - 34A transformation-associated protein; TAP-related matrix
- 65 metalloproteinase 10 (MMP10); stromelysin 2 (SL2); transin 2
- 66 Von Hippel-Lindau tumor suppressor protein (VHL) Nm23-M2; nucleoside diphosphate kinase B; metastasis-reducing protein; c-myc-related transcription factor, NUCLEOSIDE DIPHOSPHATE KINASE A (EC 2.7.4.6) (NDK A) (NDP KINASE A) (TUMOR METASTATIC PROCESS-
- 67 ASSOCIATED PROTEIN) (METASTASIS INHIBITION FACTOR NM23
- 68 Pim-1 proto-oncogene
  - NF-2; moesin-ezrin-radixin-like protein (MERLIN); shwannomin;
- 69 neurofibromatosis type 2 susceptibility protein
- 70 glutathione S-transferase Yb subunit; GST subunit 4 mu (GSTM2)
- 71 myelin P0 protein precursor; MPZ ecto-ATPase precursor; cell-CAM 105 (C-CAM 105); ATP-dependent
- 72 taurocolate-carrier protein; GP110
- 73 leukocyte surface antigen CD53; leukocyte antigen MRC-OX44; cell surface
- 74 signal transducer CD24 precursor; heat stable antigen (HSA); nectadrin
- 75 Jun-D; c-jun-related transcription factor
- 76 growth arrest and DNA-damage-inducible protein 153 (GADD153)
- 77 cyclin-dependent kinase 2 alpha (CDK2-alpha) + cyclin-dependent kinase 2-
- 78 inducible nitric oxide synthase (iNOSI); type II NOS matrix metalloproteinase 14 precursor (MMP14); membrane-type matrix
- 79 metalloproteinase 1 (MT-MMP1)
- 80 Wilms' tumor protein (WT1); tumor suppressor NDK-B; nucleoside diphosphate kinase B; metastasis-reducing protein; cmyc-related transcription factor (18 kDa subunit), NUCLEOSIDE
- 81 DIPHOSPHATE KINASE B (EC 2.7.4.6) (NDK B) (NDP KINASE B) (P18).
- 82 c-raf proto-oncogene; raf-1
- 83 MSH2 DNA mismatch repair protein
- 84 gluthathione S-transferase subunit 5 theta (GST5-5)

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annexin V (ANX5); lipocortin 5; placental anticoagulant protein I (PAP-I);
  85 endonexin II; calphobindin I (CBP-I); PP4; thromboplastin inhibitor; vascular
  86 cadherin 6 precursor; kidney-cadherin (K-cadherin)
  87 CD4 homologue, W3/25 antigen
 88 CD28, T-cell surface antigen
 89 Max; c-myc dimerization partner & coactivator
  90 DNA-binding protein inhibitor ID1
     cyclin-dependent kinase 7 (CDK7); CDK-activating kinase (CAK); 39-kDa
 91 protein kinase; homolog of Xenopus MO15
    cytosolic phospholipase A2 (CPLA2); phosphatidylcholine 2-acylhydrolase;
 92 lysophospholipase;PLA2G4
    proteasome delta subunit precursor; macropain delta; multicatalytic
 93 endopeptidase complex delta; proteasome subunit Y; proteasome subunit 5;
 94 c-fos proto-oncogene
    DCC; netrin receptor; immunoglobulin gene superfamily member; former
 95 tumor suppressor protein candidate
 96 c-fgr proto-oncogene
 97 adenomatous polyposis coli protein (APC)
 98 glutathione S-transferase P subunit; GST subunit 7 pi (GST7-7)
 99 CD9, surface glycoprotein, platelet
100 short type PB-cadherin
101 CD3, gamma chain
    advanced glycosylation end product-specific receptor precursor (AGER);
102 receptor for advanced glycosylation end products (RAGE)
103 cAMP-response element binding protein 1 (CREBP1)
104 Id-2; DNA-binding protein inhibitor; HLH protein
105 GAK; cyclinG-associated kinase
106 cathepsin E
107 proteasome subunit R-ring12
108 c-myc proto-oncogene
    Neogenin, DCC netrin receptor-related protein; immunoglobulin gene
109 superfamily member; former tumor suppressor protein candidate
110 fyn proto-oncogene; p59fyn
111 p130; retinoblastoma gene product-related protein Rb2/p130; cell cycle
112 liver carboxylesterase 10 precursor; carboxyesterase ES-10; PI 6.1
113 integral membrane protein E16 (TA1); L-type amino acid transporter 1
114 integrin, alpha 1
115 CD8, 37 kDa membrane protein, thymocyte
116 CD2, membrane glycoprotein, T-cell marker
117 I-kB (I-kappa B) alpha chain; RL/IF-1 gene product
118 Id-3; DNA-binding protein inhibitor; HLH protein
119 p58/GTA; galactosyltransferase associated protein kinase (cdc2-related
120 interferon-induced GTP-binding, mx1
    proteasome component C13 precursor; macropain subunit C13;
121 multicatalytic endopeptidase complex subunit C13; PSMB8
122 N-myc proto-oncogene protein
123 c-kit proto-oncogene
124 rac-alpha serine/threonine kinase (RAC-PK-alpha); protein kinase B (PKB);
125 neurofibromin; neurofibromatosis protein type I (NF1); GTPase stimulatory
126 glutahione S-transferase subunit 13
   NEUROGLYCAN C PRECURSOR; membrane-spanning chondroitin sulfate
127 proteoglycan; restricted to the brain
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128 cadherin; proton-driven peptide transporter
     BST-1; bone marrow stromal antigen 1; lymphocyte differentiation antigen
 129 CD38; ADP-ribosyl cyclase 2
 130 scavenger receptor class B type I
 131 signal transducer & activator of transcription 3 (STAT3)
 132 elongation factor SIII P15 subunit
 133 p27Kip1
 134 interferon-induced GTP-binding protein mx2 + interferon-induced GTP-
135 apolipoprotein A-I precursor (APO-AI)
136 c-jun proto-oncogene; transcription factor AP-1; RJG-9
137 basic fibroblast growth factor receptor 1 precursor (BFGF-R); MFR; FGFR1;
138 c-mos, proto-oncogene
139 heat shock 27-kDa protein (HSP27)
140 epididymal secretory glutathione peroxidase
141 AMPHOTROPIC MURINE RETROVIRUS RECEPTOR.
142 vascular cell adhesion protein 1 precursor (V-CAM 1)
     cationic amino acid transporter-1 (CAT-1); system Y+ basic amino acid
143 transporter; ecotropic retroviral leukemia receptor; ecotropic retrovirus
144 transferrin receptor protein; p90; CD71
     NF-kappa-B transcription factor p105 subunit (NFKB p105); NF-kappa-B1
145 P84; NF-kappa-B1 P98 (NFKB1); DNA-binding factor KBF1; EBP-1
146 Clk3 protein kinase; cdc2/CDC28-like
147 cyclin-dependent kinase 4 inhibitor B (CDKN2B); p14-INK4B; p15-INK5B
148 ATPase, transitional endoplasmic reticulum
149 apolipoprotein A-IV precursor (APO-AIV)
150 S-myc proto-oncogene protein; myc-related
    erbB2 receptor protein-tyrosine kinase precursor; p185ERBB2; neu proto-
151 oncogene; epidermal growth factor receptor- related protein
152 c-H-ras proto-oncogene; transforming G-protein p21
153 HSP84; HSP90-beta; heat shock 90kD protein
154 phospholipid hydroperoxide glutathione peroxidase
155 fibronectin receptor beta subunit precursor; integrin beta 1
156 receptor protein-tyrosine phosphatase zeta/beta (R-PTP-Z)
157 MAL; T-lymphocyte maturation-associated protein; myelin protein MVP17
158 Non-processed neurexin III-alpha, NEUREXIN III-ALPHA, ISOFORM D
159 CREB active transcription factor; transcription activator protein
160 MeCP-2; methyl-CpG DNA-binding protein 2
161 M-phase inducer phosphatase 2 (MPI2); cell division control protein 25 B
    glucose-regulated 78-kDa protein (GRP78); BiP; immunoglobulin heavy
162 chain binding protein; steroidogenesis-activator polypeptide; HSPA5
163 insulin-like growth factor binding protein, complex acid-labile subunit
164 c-ets-1 proto-oncogene protein; p54
165 ErbB3 EGF receptor-related proto-oncogene; HER3
166 c-N-ras proto-oncogene; transforming G-protein p21
    heat shock 60-kDa protein (HSP60); 60-kDa chaperonin (CPN60); GroEL
167 homolog; mitochondrial matrix protein P1; p60 lymphocyte protein
168 glutathione S-transferase, Yrs-Yrs inactivating
169 integrin beta 4 precursor
170 Neural adhesion molecule F3, RAT NEURAL ADHESION MOLECULE F3,
171 fasl receptor; fas antigen precursor; Apo-1 antigen
172 SR13 myelin protein; peripheral myelin protein 22 (PMP-22); CD25 protein
173 interferon regulatory factor 1 (IRF1)
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174 G2/M-specific cyclin B1 (CCNB1) 175 RCL; c-Myc-responsive gene, growth-related Regenerating protein III (reg III). PANCREATITIS-ASSOCIATED PROTEIN 176 2 PRECURSOR (LITHOSTATHINE 3) (ISLET OF LANGERHANS von ebner's gland protein 2; VEG protein 2; VEGP2 + von ebner's gland 177 protein 1; VEG protein 1; VEGP1; VEGP 178 cysteine-rich protein 2 (CRP2); ESP1 179 trk, proto-oncogene, precursor 180 c-K-ras 2b proto-oncogene; transforming G-protein p21 181 heat shock 70-kDa protein (HSP70) 182 glutathione transferase, subunit 8 platelet glycoprotein IV (GPIV); GPIIIB; CD36 antigen; fatty acid translocase 183 (FAT); PAS4; adipocyte membrane protein 184 BIG-1 PROTEIN PRECURSOR; neural cell adhesion protein; neurite 185 CD 30L receptor; lymphocyte activation antigen CD30; Ki-1 antigen; CD30 ADP-RIBOSYL CYCLASE 1 (EC 3.2.2.5) (CYCLIC ADP-RIBOSE 186 HYDROLASE 1) (CADPR HYDROLASE 1) (CD38-HOMOLOGOUS 187 New England Deaconess transcription factor 188 G1/S-specific cyclin C (CCNC) 189 p55cdc; cell division control protein 20 190 antigen peptide transporter 1 191 apolipoprotein D Rb: pp105; retinoblastoma susceptibility-associated protein; tumor 192 suppressor gene; cell cycle regulator 193 platelet-derived growth factor B-chain (PDGFb); c-sis 194 rab8, ras related GTPase 195 major vault protein (MVP) 196 NADPH-cytochrome P450 reductase (CPR); POR 197 P450 IB1; C3H cytochrome P450; CYP1B1 198 zinc transporter (ZnT-1) 199 sodium channel SHRSPHD, beta subunit, epithelial 200 potassium channel protein; KSHIIIA3 ATP-sensitive inward rectifier potassium channel subfamily J member 1 201 (KCNJ1); KAB-1; KIR1.1; ROMK1 202 chloride channel CIC-1, skeletal muscle CCHB3; calcium channel (voltage-gated; DIHYDROPYRIDINE-SENSITIVE 203 L-TYPE, CALCIUM CHANNEL BETA-3 SUBUNIT. beta-alanine-sensitive neuronal GABA transporter; sodium- & chloride-204 dependent GABA transporter 3 205 sodium/phosphate cotransporter 1 potassium-transporting ATPase alpha subunit; proton pump; gastric H+/K+ 206 ATPase alpha subunit (HKA); ATP4A 207 water channel aquaporin 3 (AQP3) 208 water channel integral protein chip 28k 209 syntaxin A 210 synaptobrevin 1 (SYB1); vesicle-associated membrane protein 1 (VAMP1) 211 3-methylcholanthrene-inducible cytochrome P450 (P450MC); cytochrome 212 BRAIN DIGOXIN CARRIER PROTEIN

213 5-hydroxytryptamine (serotonin) receptor 3; 5HT3

214 G-protein activated K+ inward rectifier

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G protein-activated inward rectifier potassium channel 4 (GIRK4); inward
     rectifier potassium channel subfamily J member 5 (KCNJ5); heart KATP
 215 channel; KATP-1; cardiac inward rectifier (CIR); KIR3.4
 216 chloride channel CIC-2
 217 sodium-dependent serotonin transporter; 5HT transporter (5HTT)
     fibroblast ADP/ATP carrier protein; ADP/ATP translocase 2; adenine
218 nucleotide translocator 2 (ANT2)
219 glucose transporter, sodium-dependent, SGLT2
220 sodium/potassium-transporting ATPase beta 1 subunit (ATP1B1)
221 peptide/histidine transporter
222 water channel, kidney collecting duct
223 synaptotagmin V
224 synaptobrevin 2 (SYB2); vesicle-associated membrane protein 2 (VAMP2)
225 cytochrome P450 VII (CYP7); cholesterol 7-alpha-monooxygenase;
226 glucose transporter type 1 (erythrocyte/brain)
227 cyclic nucleotide-activated channel, olfactory
228 chloride channel protein 3 (CLC3; CLCN3)
229 ISK slow voltage-gated potassium channel protein; mink potassium channel;
230 potassium channel RB-IRK2, inward rectifier
     dopamine transporter (cocaine-sensitive); sodium-dependent dopamine
231 transporter (DA transporter; DAT)
     kidney oligopeptide transporter; peptide transporter 2 (PEPT2); kidney
232 H+/peptide cotransporter; SLC15A2
233 sodium/dicarboxylate cotransporter
234 brain calcium-transporting ATPase plasma membrane 1; calcium pump;
235 cardiac delayed rectifier potassium channel protein
236 Band 3 (B3RP3), 3 CI-HCO3-anion exchanger
    annexin I (ANX1); lipocortin I; calpactin II; chromobindin 9; P35;
237 phospholipase A2 inhibitory protein
    epidermal fatty acid-binding protein (E-FABP); cutaneous fatty acid-binding
238 protein (C-FABP); DA11; FABP5
239 cytochrome P450 2E1 (CYP2E1); P450-J; P450RLM6
240 glucose transporter protein
241 acetylcholine receptor gamma
242 chloride channel protein 5 (CLCN5; CLC5)
243 voltage-gated potassium channel protein KV1.1; RBK1; RCK1; KCNA1
244 potassium channel, inward rectifier 11
245 high affinity L-proline transporter
    renal sodium-dependent phosphate transport protein 2; sodium/phosphate
246 cotransporter 2; renal Na+-dependent phosphate cotransporter 2; SLC17A2
247 sodium/calcium exchanger NCX3
248 sodium/potassium-transporting ATPase beta 2 subunit (ATP1B2)
249 aquaporin (pancreas & liver; AQP 8)
250 organic anion transporter
251 SYNAPTOTAGMIN XI; membrane trafficking protein
252 fatty acid-binding protein (liver; L-FABP); Z-protein; squalene- & sterol-
253 cytochrome P450 IA2 (CYPIA2); P450-D; P448 + cytochrome P450
254 glucose transporter 3
255 acetylcholine receptor delta
    ATP-sensitive inward rectifier potassium subfamily J member 8 (KCNJ8);
256 UKATP-1; ATP-sensitive inwardly rectifying K+ channel KIR6.1
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257 skeletal muscle sodium channel protein alpha subunit (SCN4A); MU-1

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258 potassium channel, inward rectifier 9
259 sodium/bile acid cotransporter; sodium/taurocholate cotransporting
    gamma-aminobutyric acid transporter 1 (GABT1; GAT1); sodium- & chloride-
260 dependent GABA transporter 1; SLC6A1
261 neurotransmitter transporter, sodium dependent
262 calcium-transporting ATPase 3; calcium pump; SERCA3; ATP2A3
263 urea transporter
264 urate transporter/channel
265 RIM; Rab3 effector in synaptic-vesicle fusion
266 fatty acid-binding protein (heart; H-FABP)
267 cytochrome P450 4B1 (CYP4B1); P450-isozyme 5
268 fructose (glucose) transporter
269 ATP ligand gated ion channel
270 voltage gated potassium channel; kv43
    voltage-dependent L-type calcium channel alpha 1D subunit (CACNA1D); L-
271 type calcium channel alpha 1 polypeptide isoform 2 (CCHL1A2); rat brain
272 potassium channel-like protein KATP2, beta cell
273 cationic amino acid transporter 3
274 sodium/hydrogen exchange protein 1
275 taurine transporter
    potassium-transporting ATPase beta subunit (ATP4B); proton pump; gastric
276 H+/K+ ATPase beta subunit
277 voltage-gated sodium channel (atypical)
278 ATP synthase lipid-binding protein P1 precursor; ATPase protein 9; ATP5G1
279 lipocortin 2
280 fatty acid-binding protein (intestinal; I-FABP; FABPI)
281 cytochrome P-450 14 DM???? + sterol 14-demethylase pseudogene
282 neuronal acetylcholine receptor protein alpha-3 chain precursor
283 purinergic receptor P2X5, ligand-gated ion channel
284 sodium channel I
    voltage-dependent L-type calcium channel alpha 1C subunit (CACNA1);
    cardiac muscle L-type calcium channel alpha 1 polypeptide isoform 1
285 (CCHL1A1); rat brain class C (RBC); CACH2; CACN2
286 potassium channel Kir6.2, inward rectifier, ATP-sensitive
287 glycine transporter
288 sodium/hydrogen exchange protein 3
289 glutamate transporter, sodium-dependent, high-affinity (EAAT4)
290 ATPase, hydrogen-potassium, alpha 2a subunit
291 vesicular acetylcholine transporter RVAT
292 ATP synthase, subunit c, P2 gene
293 amphiphysin II (AMPH2)
    nonspecific lipid-transfer protein precursor (NSL-TP); sterol carrier protein 2
294 (SCP2); sterol carrier protein X (SCPX)
295 copper-zinc-containing superoxide dismutase 1 (Cu-Zn SOD1)
296 degenerin channel MDEG; amiloride-sensitive brain sodium channel BNAC1
297 sodium channel, amiloride sensitive, alpha subunit; SCNEA; alpha NACH;
298 cardiac specific sodium channel alpha subunit
299 potassium channel protein CDRK
300 chloride channel CIC-7
301 monocarboxylate transporter MCT1
302 sodium/hydrogen exchange protein 4
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303 SYNAPTIC VESICLE PROTEIN 2B

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304 ATPase, calcium, brain
305 aquaporin 7 (AQP7)
306 myelin proteolipid protein (PLP); DM-20; lipophilin
307 intrinsic factor precursor (INF; IF); gastric intrinsic factor (GIF)
308 adipocyte fatty acid-binding protein (AFABP; FABP4); adipocyte lipid-binding
309 plasma glutathione peroxidase precursor (GSHPX-P; GPX3); selenoprotein
310 neuronal acetylcholine receptor protein alpha 5 subunit precursor (CHRNA5;
311 sodium channel SHRSPHD, gamma subunit, epithelial
312 sodium channel protein 6 (SCP6)
313 calcium channel, L-type, dihydropyridine-sensitive, alpha 2 subunit
314 potassium channel, voltage gated, KV3.1; RAW2; KV4; NGK2; KCNC1
315 sodium dependent sulfate transporter
316 gamma-aminobutyric acid (GABA) transporter 2
317 sodium-glucose cotransporter 1
318 ATPase, sodium/potassium, alpha(+) isoform catalytic subunit
319 anion exchange protein 2 (AE2); non-erythroid band 3-like protein (B3RP);
320 myelin-associated glycoprotein precursor (L-MAG/S-MAG); brain neuron
    low-density lipoprotein receptor-related protein 2 precursor (LDL receptor;
321 LRP2); megalin; glycoprotein 330
322 testis lipid-binding protein (TLBP); 15-kDa perforatorial protein (PERF15);
323 renal organic anion transporter (ROAT1) + multispecific organic anion
324 neuronal acetylcholine receptor protein alpha 6 subunit precursor (CHRNA6;
325 purinergic receptor P2X3, ligand-gated ion channel
    voltage-dependent P/Q-type calcium channel alpha-1A subunit (CACNA1A);
    L type calcium channel alpha-1 polypeptide isoform 4 (CACNL1A4:
326 CACH4); brain calcium channel I; rat brain brain class A (RBA-1); CACN3
327 calcium channel, alpha 1 beta
328 sodium channel, beta 1 subunit
329 sodium-hydrogen exchange protein-isoform 2 (NHE-2)
330 glutamate/aspartate transporter, cochleae
    PMCA; ATP2B2; calcium-transporting ATPase plasma membrane (brain
331 isoform 2; EC 3.6.1.38); calcium pump
332 ATPase, sodium/potassium, gamma subunit
    G protein-activated inward rectifier potassium channel 1 (GIRK1); inward
333 rectifier potassium channel subfamily J member 3 (KCNJ3); KGA; KGB1;
334 fibrinogen beta subunit (FGB)
335 Amphiphysin; Amph1
336 synaptotagamin I
337 kidney specific organic anion transporter OAT-K1
338 neuronal acetylcholine receptor protein alpha 7 subunit precursor (CHRNA7;
339 neuronal nicotinic acetylcholine receptor alpha 2 subunit
340 proton gated cation channel drasic; sensory neuron specific
341 sodium channel SCNB2, beta 2 subunit, brain
342 sodium channel 2, brain
343 proton-coupled dipeptide cotransporter
344 sodium/chloride neurotransmitter transporter
345 sulfonylurea receptor
346 ATPase, copper-transporting, Menkes protein
347 channel-inducing factor precursor (CHIF); corticosteroid-induced protein
348 MYELIN BASIC PROTEIN S (MBP S)
349.Sec1; syntaxin binding protein 1; UNC-18A; UNC-18-1; N-SEC1; RBSEC1
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350 synaptotagmin II

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351 organic cation transporter 2 (OCT2)
352 sulfonylurea receptor (SUR)
353 P2X purinoceptor 2; ATP receptor P2X2; purinergic receptor
354 ASIC1 proton gated cation channel
355 potassium channel drk1, delayed rectifier
356 potassium channel RCK3, subunit, putative
357 GluT and GluT-R glutamate transporter
358 sodium/calcium exchanger NCX2
359 Na+/K+ ATPase alpha 1 subunit
360 multidrug resistance protein (MDR1); P-glycoprotein (PGY1)
361 water channel, aquaporin 4, mercurial-insensitive
362 synapsin 2A
363 synaptotagmin IV (SYT4)
364 synaptotagmin III (SYT3)
365 organic cation transporter 1A (OCT1A)
366 cyclic nucleotide-gated channel, olfactory
367 glycine receptor alpha 3 subunit precursor (GLRA3)
368 voltage-gated K+ channel protein; RK5; potassium channel protein
369 potassium channel RCK2
370 potassium channel RCK4, subunit, putative
371 liver Na+/Cl- betaine/GABA transporter
372 sodium-potassium-chloride cotransporter, bumetanide-sensitive
373 Na,K-ATPase beta 3 subunit
374 synaptic vesicle protein 2 (SV2)
375 water channel, aquaporin 5
376 annexin IV(ANX4); lipocortin IV;36-kDa zymogen granule membrane-
377 synapsins IA & IB (SYN1)
378 syntaxin 3 (STX3)
379 multidrug resistance protein 2 (MDR2); P-glycoprotein (PGY2)
380 purinergic receptor P2X4, ligand-gated ion channel
    voltage-activated calcium channel alpha-1 subunit (RBE-II); nickel-sensitive
381 T-type calcium channel alpha-1 subunit
382 inward rectifier potassium channel subfamily J member 2 (KCNJ2); RBL-
383 potassium channel, voltage gated, KV3.4; RAW3; KCNC4
384 calcium channel, beta subunit, brain
    excitatory amino acid transporter 3 (EAAT3); sodium-dependent
385 glutamate/aspartate transporter 3; excitatory amino-acid carrier 1 (EAAC1);
386 sodium/chloride cotransporter, thiazide sensitive
387 vacuolar ATP synthase 16-kDa proteolipid subunit; ATP6C; MVP; ATPL
    synaptic vesicle amine transporter (SVAT); monoamine transporter;
388 vesicular amine transporter 2 (VAT2)
389 fatty acid transport protein
390 epimorphin (EPIM); syntaxin 2 (STX2)
391 secretogranin II precursor (SGII; SCG2); chromogranin C (CHGC)
392 syntaxin 4 (STX4)
393 syntaxin 5 (STX5)
394 Rab GDI alpha; Rab GDP-dissociation inhibitor alpha; GDI-1
395 cytochrome B5 (CYB5)
396 mitochondrial ATP synthase D subunit; ATP5H
397 colipase precursor
    steryl-sulfatase precursor (EC 3.1.6.2); steroid sulfatase; steryl-sulfate
398 sulfohydrolase; arylsulfatase C (ASC)
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3-beta-hydroxysteroid dehydrogenase/delta-5-->-4 isomerase, type 1:
    3BETA-HSD I + 3-beta-hydroxysteroid dehydrogenase/delta-5-->-4
399 isomerase, type 2; 3BETA-HSD II + 3-beta-hydroxysteroid
400 cytochrome P-450 4F5
401 liver arginase 1 (ARG1)
402 calmodulin (CALM; CAM)
    17-kDa ubiquitin-conjugating enzyme E2 (UBE2B); ubiquitin-protein ligase;
403 ubiquitin carrier protein; HR6B
404 40S ribosomal protein S17 (RPS17)
405 P2X purinoceptor 1; ATP receptor P2X1; purinergic receptor; RP-2 protein
406 c-met proto-oncogene; hepatocyte growth factor receptor
407 syntaxin 6
    cytosolic hydroxymethylglutaryl-CoA synthase (HMG-CoA synthase;
408 HMGCS1); 3-hydroxy-3-methylglutaryl CoA synthase
409 medium chain acyl-CoA dehydrogenase precursor (MCAD; ACADM)
410 mitochondrial ATP synthase beta subunit precursor (ATP5B)
411 acetyl-CoA carboxylase (ACC); biotin carboxylase
    lecithin:cholesterol acyltransferase (EC 2.3.1.43; LCAT);
412 phosphatidylcholine-sterol O-acyltransferase; phospholipid-cholesterol
413 cytochrome P450 2C11 (CYP2C11); P450(M-1); P450H; P450-UT-A; UT2
414 cytochrome P-450 4F6
    glutamate-cysteine ligase catalytic subunit (GLCLC); gamma-
415 glutamylcysteine synthetase; gamma-ECS; GCS heavy chain
416 uricase; urate oxidase (UOX)
    calcium binding protein 2 (CABP2); endoplasmic reticulum stress protein
417 (ERP72); protein disulfide isomerase-related protein precursor
    Fte-1; putative v-fos transformation effector protein; yeast mitochondrial
418 protein import homolog; 40S ribosomal protein S3A; RPS3A
419 dC-stretch binding protein (CSBP); heterogeneous nuclear ribonucleoprotein
420 mannose-6-phosphate/insulin-like growth factor II receptor (M6P/IGFR2)
421 syntaxin B
422 type 1 hexokinase (HK1); brain hexokinase
423 alcohol dehydrogenase A subunit; alcohol dehydrogenase class 1 (ADH1)
424 mitochondrial ATP synthase B subunit precursor; ATP5F1
425 mitochondrial carnitine O-palmitoyltransferase I liver isoform (CPT I-L)
426 fatty acid amide hydrolase
427 cytochrome P450 2A3 (CYP2A3); coumarin 7-hydroxylase
428 cytochrome P-450 2C23, arachidonic acid epoxygenase
429 mitochondrial carnitine O-palmitoyltransferase II precursor (CPT II; CPT2)
430 ceruloplasmin precursor (CP); ferroxidase
431 serine proteinase rPC7 precursor (PCSK7)
432 eukaryotic translation initiation factor 5 (EIF-5)
433 SURVIVAL OF MOTOR NEURON(RSMN)
434 platelet-derived growth factor alpha receptor (PDGFRa)
435 chromaffin granule amine transporter
    galactoside 2-L-fucosyltransferase 1 (FUT1; FTA); alpha 1,2
436 fucosyltransferase 1 (alpha(1,2)FT1); GDP-L-fucose:beta- D-galactoside 2-
437 testis-specific cytochrome C (CYCT)
438 ATP synthase, H+, alpha subunit, mitochondrial
    brain long-chain fatty acid-CoA ligase (LACS); acyl-CoA synthetase (+
439 phosphatidylinositol 4-kinase?)
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3-beta hydroxy-5-ene steroid dehydrogenase type III (3beta-HSD III; EC
440 1.1.1.145); steroid delta-isomerase (EC 5.3.3.1); progesterone reductase
441 cytochrome P450 3A1 (CYP3A1); P450-PCN1
    P450 IIA1; P-450a; 3-methylcholanthrene -inducible cytochrome P450;
442 testosterone 7-alpha-hydroxylase; P450-UT-F. + P450 IIA2
    glutamate-cysteine ligase regulatory subunit (GLCLR); gamma-
443 glutamylcysteine synthetase; gamma-ECS; GCS light chain
444 carbonic anhydrase III (CA3); carbonate dehydratase III
445 60S ribosomal protein L44; L36A
446 elongation factor 2 (EF2)
447 apolipoprotein B mRNA editing protein (APOBEC-1); REPR
448 vascular endothelial growth factor receptor 1 (VEGFR1); fms-related
449 cellubrevin
    galactoside 2-L-fucosyltransferase 2 (FUT2; FTB); alpha 1,2
    fucosyltransferase 2 (alpha(1,2)FT2); GDP-L-fucose:beta- D-galactoside 2-
450 alpha-L-fucosyltransferase 2; secretor blood group alpha-2-
    mitochondrial hydroxymethylglutaryl-CoA synthase precursor (HMG-CoA
451 synthase); 3-hydroxy-3-methylglutaryl-CoA synthase; HMGCS2
452 cytosolic acyl-CoA thioester hydrolase (ACT); long chain acyl-CoA hydrolase
    mitochondrial muscle carnitine O-palmitoyltransferase I(CPTI-M); carnitine
453 palmitoyltransferase I-like protein; CPT1B
    alcohol sulfotransferase A (EC 2.8.2.2); hydroxysteroid sulfotransferase A;
454 STA; androsterone-sulfating sulfotransferase (AD-ST); ST-40
455 cytochrome P450 2C7 (CYP2C7); P450F; PTF1
456 arachidonate 12-lipoxygenase (12-LOX; ALOX12)
457 glutathione synthetase (GSH synthetase; GSH-S; GSS); glutathione
458 carbonic anhydrase 4
459 40S ribosomal protein S12
460 mitochondrial elongation factor G precursor (MEF-G)
461 high mobility group protein 2 (HMG2)
462 BDNF/NT-3 growth factor receptor precursor; trkB tyrosine kinase; gp145-
463 fatty acid binding protein, brain
464 fructose-bisphosphate aldolase B (ALDOB); liver-type aldolase
465 cytochrome oxidase, subunit I, Sertoli cells
466 3-ketoacyl-CoA thiolase A + 3-ketoacyl-CoA thiolase B
467 acyl-CoA dehydrogenase, short-branched-chain
    2-hydroxyacylsphingosine 1-beta-galactosyltransferase precursor; UDP-
468 galactose-ceramide galactosyltransferase; ceramide UDP-
469 cytochrome P450 4A3 (CYP4A3); lauric acid omega-hydroxylase; P450-LA-
470 aldehyde dehydrogenase 2, retinaldehyde-specific
471 arginase 2
472 carbonic anhydrase 5
473 ribosomal protein S4
474 initiation factor, eukaryotic, (eIF-4E)
475 Set beta isoform + Set alpha isoform; neural plasticity-related protein
476 bone morphogenetic protein type IA receptor
477 syntaxin binding protein Munc18-2
478 fructose-bisphosphate aldolase A (ALDOA); muscle-type aldolase
479 ATPase, subunit F, vacuolar (vatf)
480 creatine kinase, ubiquitous, mitochondrial
    bile-salt-activated lipase precursor (BAL); bile-salt-stimulated lipase (BSSL);
481 carboxyl ester lipase; sterol esterase; cholesterol esterase; pancreatic
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482 phosphatidate phosphohydrolase type 2
483 cytochrome P450 4A8 (CYP4A8); P450-KP1; P450-PP1
484 lysophospholipase
485 dopa/tyrosine sulfotransferase
486 11-beta-hydroxysteroid dehydrogenase 2
487 ribosomal protein L11
488 eukaryotic translation initiation factor 2 alpha subunit (EIF-2-alpha)
489 high mobility group protein 1; amphoterin; heparin binding protein P30;
    transforming growth factor beta receptor type 1 precursor (TGF-beta
490 receptor type 1; TGFBR1; TGFR1); serine/threonine-protein kinase receptor
491 synaptosomal associated protein 25; SNAP-25; SNAP; SNAP25; SUP
492 long chain acyl-CoA synthetase 2 (LACS2); liver long chain fatty acid-CoA
493 cytochrome c oxidase, subunit VIa, heart
    sterol 26-hydroxylase mitochondrial precursor (EC 1.14.-.-); vitamin D(3) 25-
494 hydroxylase; 5-beta-cholestane-3-alpha,7-alpha,12-alpha-triol 27-
495 perilipin A/B (PERIA/PERIB); lipid droplet-associated proteins A/B
496 squalene monooxygenase; squalene epoxidase (SQLE; SE); ERG1
497 cytochrome P450 2C22 (CYP2C22); P450 MD; P450 P49
498 mitochondrial adenylate kinase 2 (AK2); ATP/AMP transphosphorylase
499 67-kDa glutamic acid decarboxylase (GAD67); GAD1
500 gamma-aminobutyric acid (GABA) transaminase
501 ribosomal protein L13
502 bcl-2-associated death promoter (BAD)
503 TGF-beta receptor type III; betaqlycan; candidate tumor suppressor gene
504 epidermal growth factor receptor (EGF receptor; EGFR)
505 Huntingtin associated 1B
506 aldolase C
507 cytochrome c oxidase, subunit IV, mitochondrial
508 fatty acid synthase
509 3-oxo-5-alpha-steroid 4-dehydrogenase 2; steroid 5-alpha-reductase 2 (SR
510 annexin III (ANX3); lipocortin 3; placental anticoagulant protein III (PAP-III);
511 cytochrome P-450 4F1, hepatic tumour
512 adenylate kinase 1 (AK1); ATP/AMP transphosphorylase; myokinase
513 glutamic acid decarboxylase (GAD65)
514 aldehyde dehydrogenase 2, mitochondrial, liver
515 ribosomal protein L10
516 BAX-alpha
517 KDR/flk1 vascular endothelial growth factor tyrosine kinase receptor
518 transforming growth factor-beta II receptor precursor (TGF-beta II receptor:
519 synaptophysin, p38
    testis fructose-6-phosphate 2-kinase/fructose 2,6-biphosphate (testis 6PF-2-
520 K/fru-2,6-P2ase); 6-phosphofructo- 2-kinase; fructose-2,6-bisphosphatase
521 cytochrome c oxidase, subunit Va, mitochondrial
522 pancreatic lipase related protein 2 precursor; secretory glycoprotein GP-3
523 20-alpha-hydroxysteroid dehydrogenase; 20-alpha-HSD; HSD1)
524 cytochrome P450 17 (CYP17); P450C17; CYPXVII; steroid 17-alpha-
525 cytochrome P-450 4F4
526 thymidylate synthase (TYMS; TS)
527 glutathione reductase
528 alkaline phosphatase
529 ribosomal protein L12
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530 bcl-2

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531 low-affinity nerve growth factor receptor precursor (NGF receptor; NGFR);
532 insulin-like growth factor I receptor alpha subunit (IGF-I-R alpha)
533 NEURODEGENERATION ASSOCIATED PROTEIN 1; downregulated by
534 sucrase isomaltase
535 cytochrome c oxidase, subunit VIIa
536 hormone sensitive lipase (EC 3.1.1.-; HSL)
537 lipoprotein lipase precursor (LPL)
538 aldehyde dehydrogenase 3, microsomal
539 cytochrome P-450 2J3
540 cytosolic thymidine kinase (TK1)
541 long chain-specific acyl-CoA dehydrogenase precursor (LCAD; ACADL)
542 dopamine beta-hydroxylase
543 S19; 40S ribosomal protein S19
544 bcl-x: bcl2-L1
545 erythropoietin receptor precursor (EPOR)
546 Rek4 Eph-related receptor tyrosine kinase; ephrin type-A receptor 3; EphA3;
547 ras-related protein rab1A
548 fructose-16-bisphosphatase, liver
549 cytochrome c oxidase, subunit VIIIh
550 triacylglycerol lipase precursor (hepatic)
    corticosteroid 11-beta-dehydrogenase isozyme 1 (11-DH); 11-beta-
551 hydroxysteroid dehydrogenase 1 (11-beta-HSD1)
552 squalene synthetase, hepatic
553 cytochrome P-450 3A9, olfactory
554 adenylate kinase 3
555 very long chain acyl-CoA dehydrogenase precursor (VLCAD)
556 acetylcholinesterase, T subunit, glycolipid-anchored
557 60S ribosomal protein L21
    clusterin (CLU); testosterone-repressed prostate message 2 (TRPM2);
558 apolipoprotein J; sulfated glycoprotein 2 (SGP2); dimeric acid glycoprotein
559 fibroblast growth factor receptor subtype 4
560 EHK1; ephrin type-A receptor 5 (EPHA5); EPH-related tyrosine kinase
561 rab13, ras related GTPase
562 neuron-specific enolase (NSE); gamma enolase (EC 4.2.1.11); 2-phospho-D
563 glucose-6-phosphate dehydrogenase
564 triacylglycerol lipase precursor (pancreatic)
    cytochrome P450 XIA1 mitochondrial precursor (CYP11A1); P450scc;
565 cholesterol side-chain cleavage enzyme; cholesterol desmolase
566 3-oxo-5-alpha-steroid 4-dehydrogenase 1 (SRD5A1); steroid 5-alpha-
567 cytochrome P-450 4A1
568 cAMP-dependent protein kinase type I-alpha regulatory chain
569 short chain acyl-CoA dehydrogenase precursor (SCAD; ACADS); butyryl-
570 NADP+ alcohol dehydrogenase; aldehyde reductase (ALR); 3-dG-reducing
571 60S ribosomal protein L19 (RPL19)
572 activator of apoptosis harakiri (HRK); neuronal death protein 5 (DP5); BID3
573 RET ligand 1 (RET1)
574 Ehk 3; ephrin type-A receptor 7; tyrosine kinase (Eph-related); EphA7
575 rab GDI, beta species, ras related GTPase
576 cytochrome c oxidase subunit Vb & VIa precursor (COX5B)
    mitochondrial hydroxymethylglutaryl-CoA lyase precursor (HMG-CoA lyase;
577 HMGCL; HL); 3-hydroxy-3-methylglutaryl CoA lyase
578 serine phospholipid-specific phospholipase A; PS-PLA1 precursor
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579 arachidonate 5-lipoxygenase (EC 1.13.11.34); 5-lipoxygenase (5-LO)
580 cytochrome P-450 19; aromatase
581 2-arylpropionyl-CoA epimerase; alpha-methylacyl-CoA racemase
582 DOPA decarboxylase (DDC); aromatic-L-amino-acid decarboxylase (EC
583 acvl-CoA oxidase
584 nitric oxide synthase 3
585 40S ribosomal protein S11
586 Huntington disease gene homolog
587 RET ligand 2 (RET2)
588 erbB4, proto-oncogene, neurequlin receptor
589 eek proto-oncogene, protein tyrosine kinase, eph/elk-related
590 prostaglandin D2 receptor
    activin receptor type I precursor (ACVR1; ACTR1); serine/threonine-protein
591 kinase receptor R1 (SKR1); TGF-B superfamily receptor type I (TSR-I);
592 calcitonin receptor precursor (CT-R); C1A/C1B
    prostaglandin E2 receptor EP2 subtype (PGE receptor EP2 subtype;
593 PTGER2); prostanoid EP2 receptor
594 5-hydroxytryptamine 2C receptor (5HT2C; 5HT1C; HTR1C); serotonin
595 neurotensin receptor type 2
596 D(1A) DOPAMINE RECEPTOR
597 gamma-aminobutyric-acid receptor delta subunit precursor (GABA(A)
598 gamma-aminobutyric acid (GABA-A) receptor, beta 1 subunit
599 acetylcholine receptor, nicotinic, alpha 4
    NEUREXIN I-BETA PRECURSOR, Non-processed neurexin I-beta Synaptic
600 cell surface proteins + NEUREXIN I-ALPHA PRECURSOR, Non-processed
601 glutamate receptor, metabotropic 3
602 gastrin-releasing peptide precursor (GRP); neuromedin C
603 platelet-derived growth factor receptor, alpha
604 growth hormone receptor precursor (GH receptor; GHR); serum-binding
    serotonin receptor; 5-hydroxytryptamine 6 receptor (5-HT-6); ST-B17;
605 possesses high affinity for tricyclic psychotropic drugs
606 platelet activating factor receptor
607 thyrotropin releasing hormone receptor
608 alpha 2B adrenergic receptor (ADRA2B); alpha 2B adrenoceptor
609 neuropeptide Y receptor type 1
    VASOACTIVE INTESTINAL POLYPEPTIDE RECEPTOR 2 PRECURSOR
    (VIP-R-2) (PITUITARY ADENYLATE CYCLASE ACTIVATING
610 POLYPEPTIDE TYPE III RECEPTOR) (PACAP TYPE III RECEPTOR)
611 GABA-A receptor rho-1 subunit precursor
612 gamma-aminobutyric acid (GABA-A) receptor, gamma 1 subunit
613 acetylcholine receptor beta
    Non-processed neurexin II-beta major, NEUREXIN II-BETA-A
614 PRECURSOR + Non-processed neurexin II-alpha, NEUREXIN II-ALPHA-B
615 P2Y purinoceptor
616 transforming growth factor beta 3 (TGF-beta3); antiproliferative growth
617 c-fms proto-oncogene; macrophage colony stimulating factor 1 (MCSF-1)
618 insulin receptor precursor (INSR; IR)
619 D(2) dopamine receptor
620 vasopressin V1b receptor
621 prostaglandin E2 receptor EP4 subtype
622 alpha 2C adrenergic receptor (ADRA2C); alpha 2C adrenoceptor
623 vasopressin/arginine receptor, V1a
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624 c-ErbA oncogene; thyroid hormone receptor alpha-1 (THRA1)
 625 GABA-B receptor 1a (GABA-BR1A receptor) + GABA-B receptor 1b (GABA-
 626 gamma-aminobutyric acid receptor alpha 2 subunit precursor (GABA(A)
     NMDAR2B; GLUTAMATE (NMDA) RECEPTOR SUBUNIT EPSILON 2
 627 PRECURSOR (N-METHYL D-ASPARTATE RECEPTOR SUBTYPE 2B)
 628 INOSITOL TRIPHOSPHATE RECEPTOR SUBTYPE 3
629 P2Y PURINOCEPTOR 6 (P2Y6)
630 leukemia inhibitory/cholinergic neuronal differentiation factor (LIF/DIF)
631 endothelin 1 receptor precursor; ETA; EDNRA
632 leptin receptor precursor (LEPR); OB receptor (OBR); FA
633 D(4) dopamine receptor; D(2C) dopamine receptor
634 prostaglandin F2 alpha receptor
635 growth hormone secretagogue receptor 1 (GHSR)
636 cholecystokinin receptor
637 vasopressin V2 receptor
638 RXR-beta cis-11-retinoic acid receptor; nuclear receptor co-regulator 1
639 glutamate receptor 1 precursor (GluR-1); GluR-A; GluR-K1
640 gamma-aminobutyric acid receptor alpha 3 subunit precursor (GABA(A)
641 NMDAR2A N-METHYL-D-ASPARTATE RECEPTOR SUBUNIT
642 inositol triphosphate receptor, type 2 (ITPR2)
643 P2U PURINOCEPTOR 1 (ATP RECEPTOR) (P2U1) (PURINERGIC
644 tumor necrosis factor alpha precursor (TNF-alpha; TNFA); cachectin
645 LCR-1; putative chemokine and HIV coreceptor homolog; G protein-coupled
646 estrogen receptor beta (ER-beta); ESR2; NR3A2
647 kappa-type opioid receptor (KOR-1)
648 lutropin-choriogonadotropic hormone receptor
649 beta 1 adrenergic receptor (ADRB1R)
650 5-hydroxytryptamine (serotonin) receptor 1B; 5-HT1B
651 adrenergic receptor, beta 2
652 thyroid hormone beta receptor; c-erbA-beta
653 ionotropic kainate 3 glutamate receptor precursor (GRIK3); glutamate
654 gamma-aminobutyric acid (GABA-A) receptor, beta 3 subunit
655 muscarinic acetylcholine receptor M3 (MACHR)
656 PKC-eta; protein kinase C eta type
657 neuropilin 2
658 glial cell line-derived neurotrophic factor precursor
659 C5a anaphylatoxin chemotactic receptor (C5AR; C5R1)
660 B1 bradikinin receptor
661 mu opioid receptor (MUOR1); mu-type opioid receptor (MOR-1); opioid
662 serotonin 5HT2 receptor
    prostagladin E2 receptor EP3 subtype (PGE receptor EP3 subtype;
663 PTGER3); prostanoid EP3 receptor
664 somatostatin receptor 2
665 5-hydroxytryptamine (serotonin) receptor 5B; 5HT5b
666 mineralocorticoid receptor (MR)
667 neuronal acetylcholine receptor protein beta 2 subunit precursor (non-alpha
668 gamma-aminobutyric acid (GABA-A) receptor, gamma 3 subunit
669 muscarinic acetylcholine receptor M2
670 coagulation factor II (thrombin) receptor (CF2R); thrombin receptor
    heat-stable enterotoxin receptor precursor; intestinal guanylate cyclase
671 (GUCY2C; GUC2C); STA receptor
672 VGF8A protein precursor
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673 endothelin receptor ET-B 674 angiotensin/vasopressin receptor (All/AVP) 675 substance P receptor (SPR); tachykinin receptor; NK-1 receptor (NK-1R) 676 thyroid stimulating hormone receptor 677 type 2 angiotensin II receptor (AGTR2: AT2) 678 opioid receptor-like orphan receptor 679 vasoactive intestinal peptide 1 receptor 680 glucocorticoid receptor 681 glutamate receptor 2 precursor (GLUR-2; GLUR-B; GLUR-K2) 682 gamma-aminobutyric acid receptor alpha 4 subunit precursor (GABA(A) 683 muscarinic acetylcholine receptor M4 (CHRM4) metabotropic glutamate receptor kinase (MGLUR1; G-protein coupled); 684 metabotropic glutamate receptor 1 precursor 685 very low-density lipoprotein receptor precursor (VLDL receptor) 686 glia maturation factor beta (GMF-beta; GMFB) 687 G-protein coupled receptor, putative, GPR41 688 atrial natriuretic peptide clearance receptor precursor (ANP-C; ANPRC; brain cholecystokinin/gastrin receptor; gastrin/cholecystokinin type B 689 receptor; CCK-B receptor (CCK-BR) 690 gonadotropin releasing hormone receptor 691 thromboxane A2 receptor (TBXA2R; TXR2); prostanoid TP receptor 692 melatonin receptor 693 glucagon-like peptide 1 receptor; GLP-1 receptor 694 vitamin D3 receptor (VDR); 1,25-dihydroxyvitamin D-3 receptor; NR1I1 695 glutamate receptor 3 precursor (GLUR-3; GLUR-C; GLUR-K3) 696 gamma-aminobutyric acid receptor alpha 5 subunit precursor (GABA(A) 697 muscarinic acetylcholine receptor M5 (CHRM5) 698 glutamate metabotropic receptor 8 (MGLUR8) 699 low-density lipoprotein receptor precursor (LDL receptor; LDLR) 700 beta-nerve growth factor precursor (beta-NGF) 701 interleukin-2 receptor beta chain 702 insulin receptor 1 703 delta-type opioid receptor (DOR-1); opioid receptor A 704 somatostatin receptor 705 alpha 1B adrenergic receptor; alpha 1B-adrenoceptor (ADRA1B) 706 5-hydroxytryptamine (serotonin) receptor 4; 5-HT4L 707 galanin receptor 1 708 retinoid X receptor alpha (RXR alpha; RXRA); NR2B1 709 glutamate receptor 4 precursor (GLUR-4; GLUR-D) 710 gamma-aminobutyric acid receptor alpha 6 subunit precursor (GABA(A) 711 glycine receptor (GlyR) alpha-1 chain precursor (48 kDa); strychnine binding 712 metabotropic glutamate receptor 6 precursor 713 asialoglycoprotein receptor R2/3 (ASGPR); hepatic lectin 2/3; RHL-2 714 granulocyte colony stimulating factor 715 interleukin-4 receptor 716 somatostatin receptor 1 (SS1R; SSTR1); SRIF-2 717 substance K receptor (SKR); neurokinin A receptor; NK-2 receptor 718 calcium-independent alpha-latrotoxin receptor 719 prostaglandin E2 receptor EP1 subtype (PGE receptor EP1; PTGER1); 720 neuromedin B receptor 721 melatonin-related receptor

722 thyroid hormone receptor ErbA-beta-2, pituitary specific

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gastric inhibitory polypeptide receptor precursor (GIP-R); glucose-
723 dependent insulinotropic polypeptide receptor
724 gamma-aminobutyric acid (GABA-A) receptor, pi subunit
725 transmembrane receptor UNC5H1.
726 glutamate metabotropic receptor 2 (mGluR2)
    protachykinin alpha precursor (alpha-PPT); substance P + protachykinin
    beta precursor (beta-PPT); substance P; neurokinin A; substance K;
727 neuromedin L; neuropeptide K + protachykinin gamma precursor; substance
728 granulocyte-macrophage colony-stimulating factor (GM-CSF); colony-
729 interleukin-1 receptor type I (IL-1R-1); P80
730 cholecystokinin
731 gastrin-releasing peptide receptor (GRP-R); GRP-preferring bombesin
732 alpha 1C -adrenergic receptor
733 somatostatin receptor 5 (SSTR5; SS5R)
734 cannabinoid receptor 1, neuronal
735 neuropeptide Y5 receptor
736 androgen receptor
737 GABA-A receptor beta-2 subunit precursor
738 gamma-aminobutyric acid (GABA-A) receptor, rho 2
739 transmembrane receptor UNC5H2.
740 metabotropic glutamate receptor 5 precursor (MGLUR5; GRM5)
    nociceptin precursor; orphanin FQ; PPNOC; ORL1 receptor agonist
741 precursor; endogenous agonist of opioid receptor-like ORL1 receptor
742 macrophage inflammatory protein-2 precursor
743 fos-responsive related to IL-1 receptor Fit-1M
    glycerol kinase (GK); glycerokinase; ATP:glycerol 3-phosphotransferase;
744 ATP-stimulated glucocorticoid-receptor translocation promoter (ASTP)
745 neuromedin K receptor (NKR); neurokinin B receptor; NK-3 receptor (NK-
746 corticotropin-releasing factor receptor subtype 2 (CRF2R)
747 5-hydroxytryptamine 1F receptor (5HT1F; HTR1F); serotonin receptor
748 pancreatic polypeptide receptor PP1
749 melanocortin receptor 4
    Nur77 early response protein; NGF-I; nerve growth factor induced protein I-
750 B (NGFI-B); nuclear receptor
751 GABA-A receptor gamma-2 subunit precursor
752 glutamate receptor, ionotropic, kainate 5
753 glycine receptor, alpha 2A subunit, inhibitory
754 G protein-coupled receptor 27; gustatory receptor 27 (GUST27)
755 neuropeptide Y precursor (NPY)
756 fibroblast growth factor 10 precursor (FGF10)
757 interleukin 8 receptor
758 guanylyl cyclase (membrane form)
    alpha-1D adrenergic receptor (ADRA1D); alpha 1D-adrenoceptor; alpha-1A
759 adrenergic receptor (ADRA1A); RA42
760 parathyroid hormone receptor PTH2
761 5-hydroxytryptamine 5A receptor (5HT5A; HTR5A); serotonin receptor;
762 galanin receptor 2
763 somatostatin receptor 3
764 NOR-1; member of thyroid/steroid receptor superfamily
    glutamate [NMDA] receptor subunit epsilon 3 precursor; N-methyl-D-
765 aspartate receptor subunit 2C (NMDAR2C; NR2C); GRIN2C
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766 acetylcholine receptor alpha

# 767 NEURONAL PENTRAXIN RECEPTOR 768 metabotropic glutamate receptor 7 precursor (GRM7; MGLUR7) 769 NEUROKININ B PRECURSOR (NEUROMEDIN K) 770 platelet-derived growth factor A-chain (PDGF-A) 771 galanin precursor (GALN; GAL) 772 activin type receptor 773 glucagon receptor precursor (GL-R) 774 follicle stimulating hormone receptor 775 parathyroid hormone/parathyroid hormone-related receptor 1 (PTH/PTHR 776 secretin receptor 777 5-hydroxytryptamine (serotonin) receptor 2B 778 N-methyl-D-aspartate receptor (NMDAR1); glutamate receptor subunit zeta 779 gamma-aminobutyric acid receptor alpha 1 subunit precursor (GABA(A) 780 acetylcholine receptor, nicotinic, epsilon, muscle 781 neuropilin 782 glutamate receptor, metabotropic 4 783 NEUROMEDIN U-23 PRECURSOR (NMU-23) 784 trombopoietin 785 insulin like growth factor II (IGF-II) 786 neurotrophin 5, trk and trkb activating 787 inhibin alpha chain precursor 788 natriuretic peptide precursor, gamma, atrial 789 interleukin-2 (IL-2) 790 corticotropin-releasing factor binding protein 791 arrestin D + guanine aminohydrolase (GAH) extracellular signal-regulated kinase 1 (ERK1); mitogen-activated protein kinase 1 (MAP kinase 1; MAPK1); insulin-stimulated microtubule-792 associated protein-2 kinase; MNK1; PRKM3; ERT2; p44-MAPK 793 protein kinase C gamma type (PKC-gamma) 794 rhodopsin kinase 795 serine/threonine kinase PCTAIRE3 (PCTK3) 796 protein phosphatase 2C alpha (PP2C alpha; PP2C1); protein phosphatase 797 Ral B; GTP-binding protein 798 guanine nucleotide-binding regulatory, alpha subunit 799 heparin-binding growth associated protein 800 bone morphogenetic protein 3 801 thyroliberin precursor; thyrotropin-releasing hormone precursor (TRH) 802 thyroid stimulating hormone, beta 803 interleukin 6 (IL-6) 804 chromogranin A 805 G protein-coupled receptor kinase 5 (GRK5) extracellular signal-regulated kinase 2 (ERK2); mitogen-activated protein 806 kinase 2 (MAP kinase 2; MAPK2); p42-MAPK; ERT1 807 protein kinase C zeta type (PKC-zeta) 808 Casein kinase II (alpha subunit) 809 Pyruvate dehydrogenase kinase kinase precursor serine/threonine protein phosphatase 2B catalytic subunit beta; calmodulin-810 dependent calcineurin A subunit beta; CAM-PRP catalytic subunit; PPP3CB 811 GTP-binding protein G(i)/G(s)/G(o) gamma-9 subunit; Ggamma8 812 Ras-related GTPase, ARF-like 1 813 insulin like growth factor I (IGF-I)

814 transforming growth factor, beta 1

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815 follicle stimulating hormone beta-subunit
816 vasoactive intestinal peptide
817 interleukin-7 (IL-7)
818 NEUREXOPHILIN 1 (NEUROPHILIN)
819 c-src-kinase (CSK) & negative regulator; tyrosine-protein kinase
    extracellular signal-regulated kinase 3 (ERK3); mitogen-activated protein
820 kinase 3 (MAP kinase 3; MAPK3); p55-MAPK
821 PKN cell morphology-related protein kinase; homologous to PKC
822 Ctk; non-receptor protein tyrosine kinase (batk)
823 HEP; LC-PTP protein-tyrosine phosphatase; hematopoietic protein-tyrosine
824 protein phosphatase 2A, regulatory subunit B
825 transducin beta-1 subunit; GTP-binding protein G(i)/G(s)/G(t) beta subunit 1
    GTP-binding protein (G-alpha-8), GUANINE NUCLEOTIDE-BINDING
826 PROTEIN G(S), ALPHA SUBUNIT (ADENYLATE CYCLASE-
827 vascular endothelial growth factor D (VEGF-D)
828 growth factor, schwannoma-derived
829 placental lactogen
830 preprolactin (Prl)
831 interleukin-10 (IL-10)
832 early growth response protein 1 (EGR1); nerve growth factor-induced
833 Hck tyrosine-protein kinase; p56-hck; hemopoietic cell kinase
834 LIM domain serine/threonine kinase 1 (LIMK-1)
835 calcium/calmodulin-dependent protein kinase type IV (CAMK IV; catalytic
836 Rsk; ribosomal protein S6 kinase
837 Cot proto-oncogene; Tpl-2
838 protein tyrosine phosphatase, striatum enriched
839 transducin beta-2 subunit; GTP-binding protein G(i)/G(s)/G(t) beta subunit 2
840 ras-related protein Rab2
841 macrophage migration inhibitory factor (MIF)
842 keratinocyte growth factor
843 prolactine like protein A (rPLP-A)
844 gonadotrophin-releasing hormone precursor
845 interleukin 13 precursor (IL-13); T-cell activation protein P600
846 gastric inhibitory polypeptide precursor (GIP; glucose-dependent
847 spleen tyrosine kinase (SYK)
848 LIM domain kinase 2 (LIMK2)
849 cell adhesion kinase beta (CAK beta); calcium-dependent; FAK family
850 GSK-3 alpha; glycogen synthase kinase-3 alpha;
851 cyclin-dependent kinase 4 (CDK4); cell division protein kinase 4; PSK-J3
852 protein tyrosine phosphatase 2E1
853 guanine nucleotide-binding protein G(i)/G(s)/G(t) beta subunit 3 (GNB3);
854 Rab-3a ras-related protein
855 CXC chemokine LIX
856 cytokine-induced neutrophil chemoattractant 2, beta
857 somatostatin
858 corticotropin-releasing hormone
859 interleukin-15 (IL-15)
860 Transforming growth factor beta (TGF-beta) masking protein large subunit
861 Lvn tvrosine-protein kinase
862 mitogen-activated protein kinase p38 (MAP kinase p38); CSBP2
863 G protein beta-adrenergic receptor kinase 1 (beta-ARK1; EC 2.7.1.126)
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864 CamK II; calcium/calmodulin-dependent protein kinase brain type II beta

Fig. 9 provides the gene names for the gene numbers referenced in Fig. 8.

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865 cyclin-dependent kinase 5 (CDK5); tau protein kinase II (TPKII) catalytic
866 protein tyrosine phosphatase PTPase
867 ras-related protein m-ras
868 Rab-4a ras-related protein
869 erythropoietin precursor (EPO)
870 heparin-binding growth factor 1
    somatoliberin precursor; growth hormone-releasing factor) (GRF); growth
871 hormone-releasing hormone (GHRH).
872 inhibin, beta A subunit
873 insulin-like growth factor binding protein 2 (IGF-binding protein 2; IGFBP2;
874 F-SPONDIN PRECURSOR; secreted protein; promotes neural cell adhesion
875 cAMP-dependent protein kinase catalytic subunit
    dual-specificity mitogen-activated protein kinase kinase 1 (MAP kinase
876 kinase 1; MAPKK1; extracellular signal-regulated kinase activator kinase 1
877 G protein beta-adrenergic receptor kinase 2 (beta-ARK2; EC 2.7.1.126)
878 CamK I; calcium/calmodulin-dependent protein kinase type I + CaM-like
879 cell division control protein 2 homolog (CDC2); cyclin-dependent kinase 1
880 protein phosphatase 2C isoform; Mg2+ dependent protein phosphatase beta
881 ras associated with diabetes (RAD1)
882 Rab-3b ras-related protein
883 glia-activating factor precursor (GAF); fibroblast growth factor 9 (FGF9);
884 bone morphogenetic protein 4
    muscle 6-phosphofructokinase (PFKM); phosphofructokinase 1;
885 phosphohexokinase; phosphofructo-1-kinase A
886 gastrin
887 leptin precursor; obesity factor
888 secretogranin 3 (Sg3)
889 PKR; double-stranded RNA-activated eIF-2a kinase
    dual-specificity mitogen-activated protein kinase kinase 2 (MAP kinase
890 kinase 2; MAPKK2; extracellular signal-regulated kinase activator kinase 2
    calcium/calmodulin-dependent protein kinase type II delta subunit (CAM-
891 kinase II delta; CAMK-II delta; CAMK2D)
892 serum/glucocorticoid-regulated serine/threonine protein kinase (SGK)
893 wee1 tyrosine kinase
894 protein tyrosine phosphatase PTP-S
    GTP-binding protein; G-alpha-i3; guanine nucleotide-binding protein G(K)
895 alpha subunit (G(I) alpha-3)
896 Rab-11A; Ras p21-like small GTP-binding protein; 24KG; YL8
897 fibroblast growth factor 5 (FGF5); HBGF5
898 bone morphogenetic protein 2
899 thymosin beta-like protein
900 calcitonin
901 insulin-like growth factor binding protein 1 precursor (IGFBP-1; IBP-1)
902 Grb2; Ash-m; growth factor receptor-bound protein 2; adaptor protein; sos-
903 Janus tyrosine protein kinase 1 (JAK1)
    dual-specificity mitogen-activated protein kinase kinase 5 (MAP kinase
904 kinase 5; MAPKK5; extracellular signal-regulated kinase activator kinase 5
905 phosphorylase kinase, catalytic subunit
906 MRK; serine/threonine kinase, possibly involved in cardiac development
907 PCTAIRE1; cdc2-related serine/threonine kinase
908 R-PTP-A; receptor protein-tyrosine phosphatase alpha
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guanine nucleotide-binding protein G(I) alpha 2 subunit (GNAI2); adenylate
909 cyclase-inhibiting G alpha protein
910 rab12, ras related GTPase
911 hepatocyte growth factor precursor (HGF); scatter factor (SF); hepatopoeitin
912 Glioma-derived vascular endothelial cell growth factor
913 presomatotropin
914 interferon, alpha 1
915 insulin-like growth factor binding protein 3 precursor (IGFBP-3; IBP-3)
916 beta-arrestin 1
917 Jak2 tyrosine-protein kinase; Janus kinase 2
918 protein kinase C alpha type (PKC-alpha)
919 insulin receptor-related receptor-alpha (sIRR-1)
920 Casein kinase I delta; CKId; 49-kDa isoform
921 G protein-coupled receptor kinase 4 (GRK4)
    Protein tyrosine phosphatase (OST-PTP) associated with bone and
    testicular differentiation receptor-type, OSTEOTESTICULAR PROTEIN
922 TYROSINE PHOSPHATASE PRECURSOR (EC 3.1.3.48)
923 guanine nucleotide-binding protein beta subunit 5 (GNB5); transducin beta
924 rab15, ras related GTPase
    heparin-binding epidermal growth factor-like growth factor precursor
925 (heparin-binding EGF-like growth factor; HBEGF; HEGFL); DTR
    small inducible cytokine A3 precursor (SCYA3); macrophage inflammatory
926 protein 1 alpha precursor (MIP1-alpha; MIP1A)
927 C-type natriuretic peptide precursor (CNP; NPPC)
928 Interferon gamma precursor (IFN-gamma; IFNG)
929 endothelin-1 precursor (ET-1)
930 beta-arrestin 2 (ARRB2)
931 Jak3 tyrosine-protein kinase; Janus kinase 3
932 protein kinase C beta-I type (PKC-beta I) + protein kinase C beta-II type
933 phosphorylase kinase, alpha subunit
    Calcium/calmodulin-dependent protein kinase kinase; phosphorylase B
934 kinase kinase; glycogen synthase A kinase; hydroxyalkyl-protein kinase
935 Syp; SH-PTP2; adaptor protein tyrosine phosphatase
    Purkinje cells-specific protein tyrosine phosphatase CBPTP, TYROSINE
936 PHOSPHATASE CBPTP (EC 3.1.3.48)
937 guanine nucleotide-binding protein G(I)/G(S)/G(O) gamma-7 subunit
938 rab14, ras related GTPase
    heparin-binding growth factor 2 precursor (HBGF2); basic fibroblast growth
939 factor (BFGF); fibroblast growth factor 2 (FGF2); prostatropin
940 CC chemokine MIP3 alpha exodus
941 peptide YY precursor (PYY)
942 Interferon gamma inducing factor precursor
943 insulin-like growth factor-binding protein (rIGFBP-6)
944 arrestin C
945 c-Jun N-terminal kinase 1 (JNK1); stress-activated protein kinase gamma
946 protein kinase C delta type (PKC-delta)
947 casein kinase 1, gamma subunit, isoform 1
948 Mak; male germ cell-associated kinase; highly expressed at and after
949 serine/threonine protein phosphatase 2A-beta catalytic subunit (PP2A-beta:
950 phosphatase 2A, catalytic subunit, isotype alpha
951 guanine nucleotide-binding protein G(O) alpha subunit (GNAO; GNAO)
952 rab16, ras related GTPase
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953 neurotrophin 3 precursor (NTF3); neurotrophic factor; HDNF; nerve growth
954 Fast; Fas antigen ligand; generalized lymphoproliferation disease gene
955 melanin-concentrating hormone precursor (PMCH; MCH)
956 interleukin 1 alpha (IL-1 alpha; IL1A)
957 insulin-like growth factor-binding protein 5 precursor (IGF-binding protein 5;
958 prostaglandin F2 receptor, alpha isoform, regulatory protein
959 c-Jun N-terminal kinase 2 (JNK2); stress-activated protein kinase alpha
960 focal adhesion protein-tyrosine kinase (FAK)
961 phosphorylase kinase, gamma subunit
962 PAK-alpha serine/threonine kinase; p21-Cdc42/Rac1 activated kinase; p68-
963 protein phosphatase 2A-beta regulatory subunit B (55 kDa); beta-PR55
964 Rab-related GTP-binding protein
    guanine nucleotide-binding protein G(I) alpha 1 subunit (GNAI1); adenylate
965 cyclase-inhibiting G alpha protein
966 G protein, gamma 5 subunit
967 BTG2 protein precursor; NGF-inducible anti-proliferative protein PC3
968 brain natriuretic peptide (BNP); 5-kDa cardiac natriuretic peptide; ISO-ANP
969 luteinizing hormone, alpha
970 interleukin 1, beta
971 cocaine/amphetamine-induced rat transcript, CART
972 protein arginine N-methyltransferase 1
973 c-Jun N-terminal kinase 3 (JNK3); stress-activated protein kinase beta
974 protein kinase C epsilon type (PKC-epsilon)
975 protein kinase II, alpha subunit, calcium/calmodulin dependent
976 serine/threonine kinase PCTAIRE2 (PCTK2)
977 nuclear tyrosine phosphatase; PRL-1; affects cell growth
978 Ral A; GTP-binding protein
979 Ras-related GTPase, ARF-like 5
980 rab26, ras related GTPase
981 rab4B, ras related GTPase
    calcium-dependent phospholipase A2 precursor (PLA2);
982 phosphatidylcholine 2-acylhydrolase (PLA2-10; PLA2G5)
983 adenylyl cyclase 4
    NVP-2; neural visinin-like Ca2+-binding protein, VISININ-LIKE PROTEIN 2
984 (VILIP-2) (NEURAL VISININ-LIKE PROTEIN 2) (NVL-2) (NVP-2).
985 Crk-associated substrate (Cas); focal adhesion kinase substrate; p130
986 ADP-ribosylation factor 5 (ARF5)
    trypsinogen II (anionic precursor; EC 3.4.21.4); pretrypsinogen II +
987 trypsinogen I (anionic precursor; EC 3.4.21.4); pretrypsinogen I
988 mast cell protease 7 precursor (RMCP-7)
989 gelatinase A
    proteasome iota subunit; macropain iota subunit; multicatalytic
990 endopeptidase complex iota subunit; 27-kDa prosomal protein (PROS27);
991 tissue inhibitor of metalloproteinase 2 (TIMP2)
992 leukocyte common antigen-related tyrosine phosphatase (LAR)
993 G protein coupled receptor, putative, GPR6
994 calponin
995 Ras-GRF (p140); sos; guanine nucleotide release/exchange factor (GNRP)
    14-kDa phospholipase A2 precursor (PLA2); phosphatidylcholine 2-
996 acylhydrolase (PLA2-8; PLA2G2C)
    adenylyl cyclase type VIII (ADCY8); ATP pyrophosphate lyase;
997 Ca2+/calmodulin-activated adenylyl cyclase
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NVP-3; neural visinin-like Ca2+-binding protein, VISININ-LIKE PROTEIN 3
 998 (VILIP-3) (NEURAL VISININ-LIKE PROTEIN 3) (NVL-3) (NVP-3).
     phosphatidylinositol 3-kinase regulatory alpha subunit (PI13-kinase p85-
 999 alpha subunit; PTDINS-3-kinase p85-alpha; PI3K)
1000 ADP-ribosylation factor 6 (ARF6)
     neuroendocrine convertase 1 precursor (NEC 1); prohormone convertase 1
1001 (PC1); proprotein convertase 1
1002 mast cell protease-3 precursor
1003 insulin-regulated membrane aminopeptidase vp165
1004 proteasome subunit R-zeta
1005 alpha-1-antiproteinase precursor; alpha-1-proteinase inhibitor; alpha-1
1006 phosphotyrosine phosphatase 6
1007 G protein coupled receptor, putative, GPR12
1008 plakoglobin
1009 guanine nucleotide-binding protein alpha 12 subunit (G alpha 12; GNA12)
1010 interferon inducible protein 10
1011 olfactory guanylyl cyclase D precursor (GUCY2D)
     serine/threonine protein phosphatase 2B catalytic subunit alpha; calcineurin
1012 A subunit alpha (CALNA); CAM-PRP catalytic subunit; PPP3CA
1013 myristoylated alanine-rich C-kinase substrate (MARCKS; MACS)
     14-3-3 protein beta/alpha; protein kinase C ingibitor protein-1; prepronerve
1014 growth factor RNH-1; KCIP-1; YWHAB
1015 urokinase-type plasminogen activator precursor (UPA); U-plasminogen
1016 cathepsin D
     dipeptidyl-peptidase I precursor (EC 3.4.14.1; DPP-I); cathepsin C;
1017 cathepsin J; dipeptidyl transferase
1018 proteasome activator rPA28 subunit alpha
     pancreatic secretory trypsin inhibitor I precursor (PSTI-I); cholecystokinin-
     releasing peptide; monitor peptide + pancreatic secretory trypsin inhibitor II
1019 precursor (PSTI-II); caltrin; calcium transport inhibitor
1020 Receptor-linked protein tyrosine phosphatase (PTP-PS)
1021 G protein coupled receptor 19
1022 DNA topoisomerase II alpha (TOP2A)
1023 RhoGAP; p122
1024 inositol 1,4,5-triphosphate 3-kinase receptor 2 (INSP3R)
1025 DPDE1; cAMP-dependent 3',5'-cyclic phosphodiesterase 4C
1026 cAMP-dependent protein kinase type II-beta regulatory chain
1027 presenilin 2 (PSEN2; PSNL2; PS2); homolog of the Alzheimer's disease
1028 protein kinase C-binding protein nel homolog 1
1029 dipeptidyl aminopeptidase related protein (DPP6)
1030 renin
1031 cathepsin K
1032 proteasome subunit RC10-II
1033 mettaloproteinase inhibitor 3 precursor; tissue Inhibitor of metalloproteinase
     Tyrosine phosphatase-like protein; negative regulator of PTPases in
     neuronal tissues, RAT PHEOCHROMOCYTOMA-DERIVED PROTEIN
1034 TYROSINE PHOSPHATASE-LIKE PROTEIN (EC 3.1.3.48)
1035 G protein coupled receptor, putative, GPR10
1036 telomerase protein component 1 (TLP1)
1037 RalGDSB; GTP/GDP dissociation stimulator for a ras-related GTPase
1038 inositol 1,4,5-triphosphate 3-kinase receptor 1
1039 DPDE4; cAMP-dependent 3',5'-cyclic phosphodiesterase 4B
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14-3-3 protein zeta/delta; PKC inhibitor protein-1; KCIP-1; mitochondrial
1040 import stimulation factor S1 subunit
1041 presenilin 1 (PSNL1; PSEN1; PS1); S182 protein
1042 protein kinase C-binding protein nel homolog 2
1043 mast cell protease 4 precursor (RMCP-4)
1044 angiotensin converting enzyme (ACE; somatic; dipeptidyl carboxypeptidase
1045 cathepsin H
1046 proteasome subunit RC7-I
1047 tissue carboxypeptidase inhibitor (TCI)
1048 adenosine A3 receptor (ADORA3); TGPCR1
1049 probable G protein-coupled receptor RTA
1050 apurinic/apyrimidinic endonuclease (AP endonuclease; APEX; APEN)
1051 Rgs4; regulator of G-protein signaling 4 (RGP4).
1052 PI4-K; phosphatidylinositol 4-kinase (92/100 kDa, soluble)
1053 Adenylyl cyclase type II
1054 PKI-alpha; cAMP-dependent protein kinase inhibitor (muscle/brain form)
     neuromodulin; axonal membrane protein GAP43; PP46; B-50; protein F1;
1055 calmodulin-binding protein P-57
1056 GAP-associated protein (p190).
1057 mast cell protease 6 precursor (RMCP-6)
     matrilysin precursor; PUMP-1 protease; uterine metalloproteinase; matrix
1058 metalloproteinase 7 (MMP7); matrin
1059 cathepsin S precursor (CTSS)
     26S protease regulatory subunit 8; SUG1; p45/SUG; TAT-binding protein
1060 homolog 10 (TBP10); PSMC5
1061 plasma proteinase inhibitor alpha-1-inhibitor III
1062 adenosine A1 receptor (ADORA1)
1063 orphan nuclear receptor TR4; NR2C2
1064 MLH1 DNA mismatch repair protein
1065 RIN1; interacts directly with Ras and competes with Raf1
1066 PI4-K; phosphatidylinositol 4-kinase (230 kDa)
1067 Adenylyl cyclase (olfactive type) type III
1068 PKI-beta; cAMP-dependent protein kinase inhibitor (testis form)
1069 SHPS-1 receptor-like protein with SH2 binding site
1070 phospholipase A-2-activating protein (PLAP)
     mast cell protease 8 precursor (RMCP-8) + mast cell protease 9 precursor
1071 (RMCP-9) + mast cell protease 10 precursor (RMCP-10)
1072 carboxypeptidase E; carboxipeptidase H
1073 cathepsin L
     26S protease regulatory subunit 7 (P26S7); MSS1; PSMC2 (or 26S
1074 protease regulatory subunit 6B (P26S6B); TAT-binding protein 7 (TBP7);
1075 plasminogen activator inhibitor -1 (PAI-1)
1076 adenosine A2A receptor (ADORA2A)
1077 ovalbumin upstream promoter gamma nuclear receptor rCOUPg
     O-6-methylguanine-DNA methyltransferase (MGMT); methylated-DNA-
1078 protein-cysteine methyltransferase
1079 phospholipase C gamma 1 9PLC gamma-1); PLC-II; PLC-148
1080 phospholipase C beta 3 (PLC-beta 3)
1081 Adenylyl cyclase type V
1082 14-3-3 protein gamma subtype; putative protein kinase C regulatory protein
1083 chloride channel RCL1
1084 nitric oxide synthase 1
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1085 tissue-type plasminogen activator (t-PA)
1086 amonipeptidase B
1087 cathepsin B
     26S protease regulatory subunit 6B (P26S6B); TAT-binding protein 7
1088 (TBP7); PSMC4 (or 26S protease regulatory subunit 7 (P26S7); MSS1)
1089 calpastatin
1090 adenosine A2B receptor (ADORA2B)
1091 Ear-3; V-erbA related protein; COUP-TFI transcription factor
1092 replication protein A 32-kDa subunit (RPA); replication factor-A protein 2
1093 phospholipase C gamma 2 (PLC gamma-2); PLC-IV
1094 phospholipase C beta 1 (PLC beta 1); PLC-I; PLC-154
1095 calcineurin B-like protein (CBLP) + calcium-binding polypeptide
1096 14-3-3 protein eta; PKC inhibitor protein-1; KCIP-1
1097 frizzled-1 (FZ-1); Drosophila tissue polarity gene frizzled homolog;
1098 carboxypeptidase D precursor (CPD)
     dipeptidyl peptidase IV (DPPIV; DPP4); bile canaliculus domain-specific
1099 membrane glycoprotein; gp110 glycoprotein
1100 membrane-type matrix metalloproteinase MT3-MMP
     apopain precursor; CPP32 cysteine protease; caspase-3 (CASP3);
1101 interleukin-1 beta converting enzyme-like protein (LICE); YAMA protein;
1102 26S protease regulatory subunit 4 (P26S4); PSMC1
1103 plasminogen activator inhibitor 2A
1104 extracellular calcium-sensing receptor precursor (CASR); parathyroid cell
     1D-myo-inositol-trisphosphate 3-kinase A (ITPKA); inositol 1,4,5-
1105 triphosphate 3-kinase (IP3 3-kinase; IP3K)
     structure-specific recognition protein 1 (SSRP1); recombination signal
1106 sequence recognition protein; T160; CIIDBP
1107 phospholipase C delta 1 (PLC delta-1); PLC-III
1108 Ca2+-independent phospholipase A2
     calbindin D28; avian- type vitamin D-dependent calcium-binding protein
1109 (CABP); spot 35 protein; CALB1
1110 14-3-3 protein theta; 14-3-3 protein tau
1111 PDGF-associated protein
1112 dipeptidase (DPEP1)
1113 prohormone convertase 2
1114 kidney aminopeptidase M (APM)
     caspase-1 (CASP3); interleukin-1 beta convertase precursor (IL-1BC); IL-1
1115 beta converting enzyme (ICE)
     proteasome beta subunit precursor; macropain beta; multicatalytic
1116 endopeptidase complex beta; proteasome chain 3; RN3; PSMB4
1117 type I procollagen C proteinase enhancer protein
1118 B2 bradykinin receptor (BK2 receptor; BDKRB2)
1119 ezrin; cytovillin; villin 2 (VIL2); p81
1120 neuronatin
1121 FKBP-rapamycin-associated protein (FRAP); rapamycin target protein
1122 cAMP phosphodiesterase 4A; DPDE2; dunce Drosophila homolog E2
1123 calretinin
     14-3-3 protein epsilon; PKC inhibitor protein-1; KCIP-1; mitochondrial import
1124 stimulation factor L subunit
1125 ADP-ribosylation factor 1 (ARF1)
1126 tripeptidylpeptidase II
1127 thrombin
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1128 metalloendopeptidase meprin beta subunit
1129 proteasome component C2
1130 ATPase, proteasomal, liver, TBP1
     thimet oligopeptidase (THOP1); endooligopeptidase A; endopeptidase
1131 24.15; PZ-peptidase; soluble metalloendopeptidase
1132 lysosphingolipid, G protein-coupled receptor
1133 plectin
1134 Sca1; spinocerebellar ataxia type 1
1135 phospholipase C delta4
1136 cAMP-dependent 3',5'-cyclic phosphodiesterase; hormone-sensitive
     Calcineurin B subunit, CALCINEURIN B SUBUNIT ISOFORM 1 (PROTEIN
1137 PHOSPHATASE 2B REGULATORY SUBUNIT).
     LERK-2; EPLG2; Eph-related receptor tyrosine kinase ligand 2; ephrin-B1
1138 precursor; Elk ligand precursor; Elk-L
1139 ADP-ribosylation factor 2
1140 neuroendrocrine protein 7B2 precursor; secretogranin V; SGNE1
1141 trypsinogen 4
1142 endothelin converting enzyme
1143 proteasome component C3
1144 proteasome subunit C5
1145 Cak tyrosine-protein kinase; EDDR1; Trk-E; Ptk-3; discoidin receptor
1146 proteinase activated receptor 2 precursor (PAR-2)
1147 growth factor; Arc
1148 fibroblast growth factor receptor-activating protein 1 (FGF receptor-
1149 inositol polyphosphate 5' phosphatase SHIP
1150 DPDE3; cAMP-dependent 3',5'-cyclic phosphodiesterase 4D
1151 NEURONAL CALCIUM SENSOR 1 (NCS-1))
1152 mothers against DPP protein rat homolog 1 (MAD1)
1153 ADP-ribosylation factor 3 (ARF3)
1154 chymotrypsinogen B precursor (EC 3.4.21.1)
1155 granzyme M precursor (GZMM); MET-ASE; natural killer cell granular
1156 polypeptide, 53 kDa, growth factor induced
1157 proteasome component C8
1158 proteasome subunit C9
1159 Flk tyrosine-protein kinase; fps/fes-related
1160 chemokine receptor-like 1 (CMKLR1); G protein-coupled chemoattractant-
1161 calponin, acidic
1162 interferon induced protein
     inositol polyphosphate 4-phosphatase type II alpha + inositol polyphosphate
1163 4-phosphatase type II-beta
1164 adenylyl cyclase type VI (ADCY6); ATP pyrophosphate-lyase; Ca(2+)-
     NVP; neural visinin-like Ca2+-binding protein, VISININ-LIKE PROTEIN 1
1165 (VILIP-1) (NEURAL VISININ-LIKE PROTEIN 1) (NVL-1) (NVP-1) (21 KD
1166 mothers against DPP protein rat homolog 3 (MAD3); putative tumor
1167 ADP-ribosylation factor 4 (ARF4)
1168 elastase 2 precursor (EC 3.4.21.71)
1169 mast cell protease 1 precursor (RMCP-1)
1170 stromelysin 3; matrix metalloproteinase 11 (MMP11)
1171 proteasome subunit RC6-1
1172 tissue inhibitor of metalloproteinase-1 (TIMP-1)
1173 serine/threonine kinase receptor, type I
1174 G protein coupled receptor 1
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Fig. 9 provides the gene names for the gene numbers referenced in Fig. 8.

1175 cofilin

1176 Opposite gonadotropin-releasing hormone (GnRH)